

# TO BOTANISTS.

I take pleasure in sending these lists of interesting plants to the Botanists of the U. S. and of Europe.

The same care has been taken to keep the present collection up to the standard of that of 1878, in point of quality; and in quantity much more material has been added to make the sets fully equal to those of our best collectors. To those who have secured my large Colorado collection of 1878 these plants will prove valuable additions. The 150 additional species of this year will bring the whole Colorado list up to 1100 species. To these I now add over 500 species of Utah plants. Both lists (of 1879) contain nearly 15 new species and about 150 not reported from those sections before.

I have left but two full sets of the Colorado collection of 1878, containing 800 species. The Utah plants are put up in sets of 400 species, and the additional Colorado plants in sets of about 100 species.

All plants STARRER are not in the sets, from lack of enough material, there being from 1 to 10 specimens each. Of these as well as the rest botanists can make selections, and their wants will be supplied as far as possible.

All specimens are first-class, except those otherwise noted in the list. It is probable that most of the doubtful plants will prove to be new species. Prof. Watson has not yet reported on the plants sent him, and therefore some are still in doubt. But notice will be given if corrections are made. I have followed the latest and best authorities in the arrangement of species in their natural order.

The additional Colorado species were secured during May, June, and a part of July. The Utah plants between July 18th and Sept. 1st. I am very greatly indebted for the unusually large and interesting list of Utah and Colorado plants to the courtesy and generosity of the Supt. of the Union Pacific R. R., to Mr. A. A. Bull Genl. Ticket Agt. of the Colorado Central R. R., to John Risley of the D. & R. G. R. R., to Mr. Sharp Supt. of the Utah Central and Utah Southern R. R., and to J. G. Kennedy and G. M. Young of the Wahsatch and Bingham Canon R. R. Had it not been for the interest which the managers of these railroads take in the exploration and development of the far West, its natural resources would still be, to the world at large, unknown and valueless. And I am glad to bear testimony to the liberality which they are ever ready to extend to scientists seeking to make known the resources of the West.

It is my intention to give another full season to the elaboration of the plants of the little known section of southern Utah; and I expect to add 1000 species to the present Utah list. Hoping that these lists will interest you,

I am respectfully yours,

MARCUS E. JONES, A. M.,

Grinnell, Poweshiek Co., Iowa.

## FLORA OF UTAH. First Fascicle.

COLLECTED BY MARCUS E. JONES, A. M.

- |   |  |   |
|---|--|---|
| 1351 Clematis Douglasii, Hooker.<br>(Fruit.)                  | 1431* Capsella Bursa-Pastoris,<br>[Moench.]        | 1347 Trifolium involueratum,<br>[Willd.]                      |
| 1350 Anemone multifida, DC.<br>(Fruit.)                       | 1215 Thlaspi alpestre, L.                          | 1046 paniculatum, Nutt.                                       |
| 1191 Thalictrum Fendleri, Eng.                                | 1430* Lepidium intermedium,<br>[Gray.]             | 1010 Melilotus alba, Lam.                                     |
| 1025 Ranunculus Cymbalaria, Ph.                               | 1270 montanum, Nutt., var. al-<br>pinum, Watson.   | 1031 Medicago sativa, L.                                      |
| 1104 adoncus, Gray.   | 1316 Cleome integrifolia, T. & G.                  | 1440* denticulata, Willd.                                     |
| 1130 albidus, R. Br., var. leiocar-<br>pus, Trautv.           | 1364* Viola palustris, L.                          | 1035 lupulina, L.   |
| 1298 macranthus, Scheele.                                     | 1359* Saponaria Vaccaria, L.                       | 1368* Astragalus Canadensis, L.                               |
| 1348 Aquilegia flavescens, Watson.                            | 1360* Siccus aculeis, L.                           | 1443* Utahensis, T. & G.                                      |
| 1349* formosa, Fisch. = <i>Carmichaelia</i>                   | 1434* Menziesii, Hooker.                           | 1210 (Undescribed. New?)                                      |
| 1212 eumlex, James.   | 1120 Douglasii, Hooker.                            | 1127 Kentrophyta, Gray.                                       |
| 1154 Delphinium elatum, L., var. (?)<br>occidentale, Watson.  | 1372 Lychnis Ajanensis, Regel. ? = <i>Silene</i>   | 1444* Vicia micrantha, Nutt.                                  |
| 1175 Aconitum Fischeri, Reich.                                | 1361 Drummondii, Watson.                           | 1445* Lathyrus polymorphus, Nutt.                             |
| 1429* Actaea spicata, L., var. argen-<br>ta, Torrey. (Fruit.) | 1270* Stellaria umbellata, Turcz.                  | 1447* Prunus demissa, Walpers.<br>(Fruit.)                    |
| 1084 Berberis repens, Lindley.<br>(Fruit.)                    | 1096* humifusa, Rottb. & Sch.                      | 1446* Virginiana, L.  |
| 1197 Corydalis Caseana, Gray.                                 | 1203 Kingii, Watson.                               | 1142 Spiraea discolor, Pursh, var.<br>dumosa, Watson.         |
| 1357 Draba Caroliniana, Walt., var.<br>micrantha, Gray.       | 1160 Jamesii, Torrey.                              | 1301 caespitosa, Nutt.  |
| 1211 aurea, Vahl.   | 1433* Arctostaphylos uva-ursi, L.                  | 1448* Neillia Torreyi, Watson.                                |
| 1356* Douglasii, Gray. = <i>alpina</i>                        | 1362* Sagina Linnaei, Presl.?                      | 1449* Rubus strigosus, Mx. (Fruit.)                           |
| 1235 alpina, L., var. alida,<br>[Regel.]                      | 1088 Spergularia media, Presl.                     | 1450* Pershia tridentata, DC. (Fr.)                           |
| 1231 Cardamine cordifolia, Gray.<br>(Fruit.)                  | 1366* Portulaca oleracea, L.                       | 1451* Cercocarpus ledifolius, Nutt.<br>(Fruit.)               |
| 1177 Arabis Drummondii, Gray.                                 | 1435* Malva rotundifolia, L.                       | 1452* Geum strictum, Ait.                                     |
| 1248 Lyallii, Watson.   | 1365* Sidaecia malvaeflora, Gray.                  | 1264 Rossii, Seringe.   |
| 1358* Caulanthus hastatus, Watson.                            | 1015* Mulvastrum coccineum, Gray.                  | 1370* Fragaria Virginiana, Ehrh.,<br>var. glauca, Watson.     |
| 1355* Erysimum asperum, DC.                                   | 1085 Sphaeralea acerifolia, Nutt.                  | 1108 Potentilla glandulosa, Lindl.                            |
| 1353* Brassica alba, Gray.                                    | 1007 Sida hederacea, Torrey.                       | 1454* rivalis, Nutt., var. mille-<br>grana, Watson.           |
| 1037 nigra, Benth. & Hook.                                    | 1121 Linum perenne, L.                             | 1371* Pennsylvanica, L., var. strig-<br>osa, Pursh.           |
| 1432* Barbaea vulgaris, Br., var.<br>stricta, Gray.           | 1112 Kingii, Watson.                               | 1227 gracilis, Dougl.?  |
| 1192 Sieybrium incisum, Eng.,<br>var. filipes, Gray.          | 1173 Geranium Richardsonii,<br>[Fisch. & Mey.]     | 1453* Anserina, L.  |
| 1117 var. Hartwegianum, Wat.                                  | 1026 Erodium cicutarium, L'Her.                    | 202 frutescens, L.  |
| 1236 Smelowskii calycina, C. A.<br>Meyer.                     | 1083 Pachystima Myrsinites, Raf.                   | 1237 Sibbaldia procumbens, L.                                 |
| 1198 Nasturtium obtusum, Nutt.                                | 1437* Acer grandidentatum, Nutt.                   | 1113 Ivesia Gordonii, T. & G.                                 |
| 1352 palustre, DC. = <i>obtusum</i>                           | 1436 glabrum, Torrey. (Fruit.)                     | 1231 New? Near to unguicu-<br>lata, Gray. = <i>virginiana</i> |
| 1047 officinale, R. Br.                                       | 1438* Negundo aceroides, Moench.<br>(Fruit.)       | 1455* Rosa blanda, Ait. (?)                                   |
| 1354* Vesicaria montana, Gray.                                | 1187 Lupinus parviflorus, Nutt. = <i>argenteus</i> | 1369* Pirus sambucifolia, Cham. &<br>Sehl.                    |
|   | 1439 laxiflorus, Dougl. = <i>argenteus</i>         | 1076 Crataegus rivularis, Nutt.<br>(Fruit.)                   |
|   | 1439a* argenteus, Pursh. = <i>laxiflorus</i>       | 1373* Saxifraga caespitosa, L.                                |
|   | 1441* Trifolium repens, L.                         |   |
|   | 1442* pratense, L.                                 |   |

\*Plants marked with a star are not in the sets.

HARVARD UNIVERSITY HERBARIUM.

THE GIFT OF



- 1172 Saxifraga punctata, L.  
1377\* Mitella trifida, Graham  
1376 pentandra, Hooker.  
1457\* Heuchera rubescens, Torrey.  
(Fruit.)  
1438\* parvifolia, Nutt. (Fruit.)  
1168 Parnassia fimbriata, Banks.  
1214 Jamaica Americana, T. & G.  
1374 Ribes laenstre, Poir., var. mole, Gray. (Fruit.)  
1456\* cereum, Dougl. (Fruit.)  
1110 Sedum debile, Watson.  
1258\* stenopetalum, Pursh.  
1141 Zauschneria Californica.  
[Presl.]  
1193 Epilobium angustifolium, L.  
1267 coloratum, Muhl.  
1103 alpinum, L.  
1099 origanifolium, Lam.  
1268 glaberrimum, Barbey, var. latifolium, Barbey.  
1309 paniculatum, Nutt.  
1148 Gayophytum ramosissimum, [T. & G.]  
1249 racemosum, T. & G., var.  
1052 Oenothera biennis, L., var. grandiflora, Lindl.  
1459\* albicaulis, Nutt.  
1460\* Gaura parviflora, Dougl.  
1276 Cereus Pacifica, Asch. & Mag.  
1461\* Mentzelia dispersa, Watson.  
1462\* leucicaulis, T. & G.  
1006 Sesuvium Portulacastrum, L.  
\* Echinochloa lobata, T. & G.  
1028 Berula angustifolia, Koch.  
1075 Sinu cicutifolium, Gmelin.  
1184 Glycosma occidentale, Nutt.  
1170 Ligusticum apifolium, [Benth. & Hook.]  
1284 Angelica pinnata, Watson.  
1233 Cymopterus (?) anisatus, Gr.  
1054 Pencilanum sativum, Benth. & Hooker.  
1153 graveolens, Watson.  
1464\* Helleborus lanatus, Mx.  
1463\* Dancus Carota, L.  
1086 Cornus stolonifera, Mx.  
1325 Sambucus glauca, Nutt.  
1465\* racemosa, L.  
1134 Symplocarpus oreophilus, [Gray.]  
1381 Lonicera involucrata, Banks. (Fruit.)  
1281 Galium bifolium, Watson.  
1466\* Aparine, L.  
1078 triflorum, Mx.  
1283 trifidum, L.  
1162 Valeriana sylvatica, Rich. edulis, Nutt.  
1338 Eupatorium purpureum, L.  
1269 Brickellia grandiflora, Nutt.  
1467\* microphylla, Gray.  
1303 Gutierrezia Euthamiae, T. & G.  
1062 Grindelia squarrosa, Dunal.  
1271 Chrysopsis villosa, Nutt., var. 1383\* var. foliosa, Eaton.  
1209 Aplopappus Parryi, Gray.  
1342 suffruticosus, Gray.  
1081 var.  
1133 Macroneuma, Gray.  
1058 Bigelovia graveolens, Gray, var. glabrata, Gray.  
1468\* Douglasii, Gray.  
1469 var.  
1310 Solidago occidentalis, Nutt.  
1149 Virga-aurea, L., var. nud-tiradiata, T. & G.  
1017 var.  
1261 var.  
1422 nemoralis, Ait., var.  
1117 var.  
1384 var.

- 1379\* Solidago Canadensis, L.  
1191 Aster canescens, Pursh.  
1345 var.  
1308 adscendens, Lindley.  
1226 var. Parryi, Eaton.  
1180 var.  
1531\* var.  
1522 var.  
1003 Aster falcatus, Lindley.  
1378 Nuttallii, T. & G.  
1123 Kingii, Eaton.  
1385 asperugineus, Eaton.  
1189 elegans, T. & G.  
1253\* var. Engelmanni, Eaton.  
1216 glaucus, T. & G.  
1332 Brachyactis frondosa, Ledeb.  
1382\* Townsendia scapigera, Eaton.  
1255 Erigeron compositum, Pursh.  
1207 ursinum, Eaton.  
1234 caespitosum, Nutt.  
1205 ochroleucum, Nutt.  
1082 stenophyllum, Eaton.  
1057 divergens, T. & G.  
1161 macranthum, Nutt.  
1291 var.  
1136 glabellum, Nutt.  
1158 var. (rays white.)  
1502 var. (rays white.)  
1240 var.  
1208 Antennaria dioica, Gaertn.  
1390 var. rosea, Eaton.  
1239 alpina, Gaertn.  
1220 Anaphalis margaritacea, Bth.  
1320 Gnaphalium Sprengelii, [Hook. & Arn.]  
1223 palustre, Nutt.  
1001 Iva axillaris, Pursh.  
1340 xanthifolia, Gray.  
1339 Ambrosia psilostachya, DC.  
1315 Xanthium strumarium, L., var. echinatum, T. & G.  
1196 Rudbeckia occidentalis, Nutt.  
1391\* Wyethia amplexicaulis, Nutt.  
1178 Helianthella Parryi, Gray, var. multicaulis, Gray.  
1307 Helianthus annuus, L. (H. lenticularis, Dougl.)  
1334\* Nuttallii, T. & G.  
1079 Helianthus multiflorus, Nutt.  
1063 Bidens connata, Muhl.  
1470\* Laya glandulosa, H. & A.  
1472\* Chamaecrista Douglasii, H. & A.  
1232 var. (alpine.)  
1305 Helenium autumnale, L.  
1386\* Actinella grandiflora, T. & G.  
1474\* Dysodia chrysanthemoides, [Lag.]  
1002 Achillea Millefolium, L.  
1475\* var. rosea, T. & G.  
1473\* Anthemis Cotula, L.  
1266 Chrysanthemum Leucanthemum, L.  
1116 Artemisia discolor, Dougl.  
1318 Ludoviciana, Nutt.  
1311 biennis, Willd.  
1335 dracunculoides, Pursh.  
1346 tridentata, Nutt.  
1476\* trifida, Nutt. (Wyom'g Ty.)  
1387\* Senecio aureus, L.  
1125 var. obovatus, T. & G.  
1144 eremophilus, Rich.  
1254 Fremontii, T. & G.  
1409 var.  
1157 lugens, Rich., var. Parryi, [Eaton.]  
1126 var. foliosus, Gray.  
1527 var. Hookeri, Eaton.  
1492 var.  
1389 var.  
1526 var.  
\* hydrophilus, Nutt.  
1228 Andinus, Nutt.

- 1174 Senecio triangularis, Hooker.  
1388\* Arnica cordifolia, Hook., var. latifolia, Bong.  
1119 var.  
1528 var.  
1128 foliosa, Nutt.  
1238 var.  
1167 longifolia, Eaton.  
1529 var.  
1107 New species? (discoid.) = *argentea*  
1155 Now? (discoid.) = *Parryi*  
1252 Cnicus edulis, Gray.  
1392\* Troximom glaucum, Nutt.  
1213 aurantiacum, Hooker.  
1092 Taraxacum Dens-Leonis. [Desf.]  
1150 Hieracium Scouleri, Hooker.  
1478\* albiflorum, Hooker.  
1480\* Lactuca sativa, L.  
1020 pulchella, DC.  
1324\* Sonchus oleraceus, L.  
1056 asper, Villars.  
1296 Vaccinium caespitosum, Mx. (Fruit.)  
1482\* Arctostaphylos Uva-ursi, [Spreng.]  
1489\* Ledum glandulosum, Nutt. (Mostly fruit.)  
1394\* Pyrola secunda, L.  
1481\* rotundifolia, L., var. incar-nata, Hooker. (Fruit.)  
1395\* chlorantha, Swartz.  
1393\* Primula Parryi, Gray.  
1206 Androsace septentrionalis, L.  
1018 Glaux maritima, L.  
1272 Apocynum androsaemifolium, L., var.  
1496\* Asclepias speciosa, Torrey.  
1042 Erythraea Nuttallii, Watson.  
1138 Gentiana Amarolla, L., var. acuta, Eng.  
1244 Swertia perennis, L.  
1230 Phlox canescens, T. & G. *Douglasii*  
1129 Collomia linearis, Nutt.  
1122 aggregata, Porter, var. at-tenuata, Gray.  
1106 Gilia Nuttallii, Gray.  
1408\* Watsoni, Gray.  
1102 Polemonium humile, Willd., var. pulchellum, Gray.  
1114 foliosissimum, Gray.  
1137 Phacelia circinata, Jacq. f. (alpine.)  
1407\* —? = *crucifera* [L.]  
1484\* Heliotropium Curassavicum, 1293 Echinopsium floribundum, Lehm. (Fruit.)  
1483\* Eritrichium leucocarpum, [Watson.]  
1256 Mertensia Sibirica, Don.  
1331 Cuscuta decora, Choisy, & Eng.  
1485\* Solanum triflorum, Nutt.  
1486\* rostratum, Dunal.  
1012 Physalis lanceolata, Mx., var. laevigata, Gray.  
1396\* Collinsia parviflora, Dougl.  
1222 Scrophularia Californica, [Cham.]  
1406\* Pentstemon glaber, Pursh, var. Utahensis, Watson.  
1405\* humilis, Nutt., var. brevi-folius, Gray.  
1129 glaucus, Graham, var. sten-osepalus, Gray.  
1080 Jaffrayanus, Gray *argenteus*  
1169 Mimulus Lewisii, Pursh.  
1059 luteus, L.  
1398 var. alpinus, Gray.  
1402\* rubellus, Gray.  
1164 moschatus, Dougl.  
1065 Veronica Anagallis, L.  
1101 Americana, Schwein.  
1404\* alpina, L.

- 1051 Castilleja minor, Gray.  
1139 miniata, Dougl.  
1401\* var. = *fulva*  
1400 pallida, Kth., var. septen-trionalis, Gray.  
1115 Orthocarpus Tolmiei, Hook. & Arn.  
1403\* Cordylanthus laxiflorus, Gr.  
1399\* Pedicularis Greenlandica, [Retz.]  
1166 racemosa, Dougl.  
1487\* Verbena hastata, L.  
1488 bracteosa, Mx.  
1319 Mentha piperita, L.  
1029 Canadensis, L.  
1066 Lycopodium lucidum, Turcz., var. Americanum, Gray.  
1317 sinuatum, Ell.  
1109 Audubertia incana, Benth.  
1152 Lophanthus urticifolius, [Benth.]  
1033 Nepeta *Cataria*, L.  
1036 Marrubium vulgare, L.  
1032 Leonurus Cardiac, L.  
1397\* Stachys palustris, L.  
1030 Plantago major, L.  
1185 eriocarpa, Torrey.  
1143\* Abronia *umbellata*, Torrey *ef. argentea*  
1143 Eriogonum heracleoides, [Nutt.]  
1411 umbellatum, Torrey.  
1322 racemosum, Nutt.  
1140 Kingii, T. & G., var. laxi-folium, T. & G. = *ch.*  
1327 var. = *bracteata*  
1530 var.  
1336 cornum, Nutt. = *Thomsonii*  
1229 Oxyria digyna, Campd.  
1183\* Rumex occidentalis, Watson. + *argyrea*  
1064 maritimus, L.  
1090 Polygonum aviculare, L.  
1410\* var. latifolium, Watson.  
1221 New? = *minimum*  
1100 tenue, Mx., var.  
1105 coarctatum, Dougl., var. [minus, Meisn.]  
1068\* nodosum, Pers.  
1067 *arg.* H. B. K. = *peruviana*  
1495\* hydropteroides, Mx. = *Hydropteris*  
1289 viviparum, L.  
1217 Convolvulus, L.  
1494\* Amarantus retroflexus, L.  
1344 alba, L.  
1299\* blitoides, Watson.  
1328 Sarcobatus vermiculatus, [Torrey.]  
1329 Sueda depressa, Watson.  
1060 fruticosa, Forsk., var. = *intermedia*  
1507 Salicornia herbacea, L.  
1176 Chenopodium olidum, Wats. = *leptophyllum*  
1485\* urticum, L. = *rubrum*  
1486\* leptophyllum, Nutt. = *br.*  
1343 hybridum, L.  
1181 Blitum capitatum, L.  
1049 glaucum, Koch.  
1182 Monolepis chenopodioides, [Moq.]  
1312\* Atriplex patula, L., var. lit-toralis, Gray.  
1591\* var. hastata, Gray.  
1011 confortifolia, Watson.  
1091 canescens, James. = *arg.*  
1306 argentea, Nutt. = *arg.*  
1491\* Kochia prostrata, Schrad. [L.]  
1341 Corispermum hyssopifolium,  
1493 Spirostachys occidentalis, [Watson.]  
1027 Urtica urens, L. = *Cham.*  
1321 Humulus Lupulus, L. (Fr.)  
1497\* Betula occidentalis, Hooker. (Fruit.)  
1498 Alnus incana, Willd. (Fruit.)

- 1171 Salix desertorum, Rich.?  
1241 arctica, Pallas, var. pet- [raea, And.]  
1024 Euphorbia glyptosperma, [Eng.]  
1135 montana, Eng.  
1300 Juniperus communis, L., var. humilis, Eng. (ms.) (Pistillate.)  
1286 Habenaria hyperborea, R. Br.  
1043 Triglochin maritimum, L.  
1071 Sagittaria variabilis, Eng.  
1304 Potamogeton graminens, L. [near to var. major, Morong. (ms.)]  
1297 rufescens, Schrad.  
1053 pauciflorus, Pursh.  
1072 Sparganium eurycarpum, [Eng.]  
1278 minimum, Banks.  
1499\* Smilacina amplexicaulis, [Nutt.]  
1500\* stellata, Desf.  
1412\* Veratrum album, L.  
1501\* Streptopus amplexifolius, DC.  
1288 Luzula spadiacea, DC., var. [parviflora, Led.]  
1413\* spicata, Desv.  
1023 Juncus Balticus, Doth., var. montanus, Eng.  
1097 Drummondii, B. Mey.  
1414\* tenuis, Willd.  
1070 bufonius, L.  
1199 longistylis, Torrey.  
1592 var. latifolius, Eng.  
1061 nodosus, L., var. mega-cephalus, Torrey.  
1094\* A. Mertensianus, Bong.  
1593 xiphoides, E. Meyer, var. littoralis, Eng.  
1503\* var. montanus, Eng.  
1044 Eleocharis palustris, R. Br.  
1069 acicularis, R. Br.  
1504\* Scirpus pungens, L.  
1016\* maritimus, L.  
1506\* Carex filifolia, Nutt. (= *obtusata*)  
1532\* foetida, All.  
1282 Hoodii, Boott.  
1415\* Hoodii, Boott. (Very slender form.)  
1282a Hoodii, Boott? (Akeno ob-long.)  
1218 Deweyana, Schw.  
1273 vitilis, Fries, f. brunnea.  
1533 " f. pallida.  
1505 lagopina, Wahl? ("or a new species," Boott.)  
1095 festiva, Dewey.  
1259 Liddoni, Boott.  
1259a " ("a form," Boott.)  
1416\* " (Fide W. Boott.)  
1534 straminea, Schk., var. typ-ica, Boott. -300  
1098 Kelloggii, W. Boott. (ms) [n. sp.]  
1285\* aquatilis, Wahl.  
1287 var.  
1257 var.  
1533\* Jamesii, Torrey.  
1243 aurea, Nutt.  
1247 atrata, L. var. *canadensis*  
1263 var. nigra, Boott.  
1292 alpina, L.  
1302 luzulaefolia, W. Boott n. sp. (See Flora Cal.)  
1417\* Raynoldsii, Dewey.  
1204 Rossii, Boott.  
1280 utriculata, Boott.  
1074 Alopecurus aristulatus, Mx.  
1419\* Phleum pratense, L.  
1201 alpinum, L.  
1055 Sporobolus airoides, Trin.

- 1022 Sporobolus asperifolius. (Vil-fa, N. & M.)  
1179 Vilfa depauperata, Torrey, [var. filiformis, Thurb.]  
1163 Agrostis scabra, Willd.  
1045 exarata, Trin.  
1014 verticillata, Villars.  
1008 vulgaris, With.  
1275 vulgaris, With. depauperate  
1013 Polypogon Monspeliensis, [Desf.]  
1219 Cinn. arundinacea, L., var. pendula, Gray.  
1420\* Calamagrostis Canadensis, 1274 Mt. form. [Beauv.]  
1145 stricta, Nutt. (not Trin.)  
1418\* Stipa viridula, Trin.  
1146 var. (alpine form.)  
1089 Spartina gracilis, Trin.  
1039 Dactylis glomerata, L.  
1594 Melica poaeoides, Nutt.  
1265 Glyceria nervata, Trin.  
1048 airoides, Thurb.  
1005 Brizopyrum spicatum, Hook.  
1034 Poa annua, L.  
1262 alpina, L.  
1514 flexuosa, Wahl.?  
1188 arctica, R. Br. (scabrous culms.)  
1188a arctica, R. Br.?  
1532\* Andina, Nutt., var.  
1531 var.  
1190 var. (Called Atropis Californica.)  
1021 tenuifolia, Nutt.  
1124 var. rigida, Vasey.  
1509 pratensis, L.  
1423 scrofula, Ehrh., var.  
1515\* Festuca ovina, L.  
1260 var. brevifolia, Watson.  
1132 Bromus Kalmii, Gray., var. occidentalis, (Vasey.)  
1111 breviristatus, Thurb.  
1009 scalinus, L.  
1333 Phragmites communis, Trin.  
1004 Triticum repens, L., var. var.  
1004a var. (spikelets double.)  
1516\* repens, L.? (spikelets in pairs.)  
1517\* var. compactum, Vasey.  
1421\* violaceum, Hornemann.  
1077\* caninum, L.  
1326\* agiloides, Turcz.  
1038 Hordern jubatum, L.  
1050 Elymus Canadensis, L.  
1186 Sitanon, Schultz.  
1019 eodensatus, Presl.  
1518 Sibiricus, L.  
1518a Sibiricus, L.?  
1519\* triticoides, Nutt.  
1156 Trietum subspicatum, Bv.  
1245 quite pubescent.  
1200 Aira danthonioides, Trin. (depauperate.)  
1693 caespitosa, L., var. arctica, Vasey.  
1520 var. montana, Vasey.  
1073 Beckmannia eruceformis.  
1313 Panicum capillare, L. [Host.]  
1510 Setaria glauca, Beauv.  
1224 Pteris aquilina, L., var.  
1511\* Pellaea densa, Hooker.  
1118 Breweri, Eaton.  
1290 Cryptogramme acrostich-oides, R. Br.  
1225 Asplenium Filix-foemina, Bernh., v. angustum, [Eaton.]  
1165 Aspidium Lonchitis, Swartz.  
1277 Cystopteris fragilis, Bernh.  
1294 Woodsia scopulina, Eaton.

1492 Koria americana  
1493 A. G. L. L. L. L. L.



1246\* *Selaginella rupestris*, Spring.  
1394\* Isoetes.  
1040\* *Chara*.

FUNGI.

1424\* *Puccinia aberrans*, Peck n. sp.  
1521 *intermixta*, Peck n. sp.  
(Wyoming Terr.)

1151 *Uromyces excavatus*, DC.  
1314 *Trichobasis Leguminosarum*,  
[Link].  
1525 *Ustilago urceolarum*, Tul.  
1229 *Syntherisma*, Schw.  
1426\* *Uredo Filicum*, Desm.  
1523\* *Coleosporium minutum*, Bon.  
1151 *Æcidium Euphorbie*, Pers.

1131 *Æcidium Epilobii*, DC.  
1521 *intermixtum*, Peck n. sp.  
(Wyoming Terr.)  
1524\* *Giliea*, Peck n. sp.  
1425 *Sphaerotheca Castagnei*, Lev.  
1295 *Erysiphe lamprocarpa*, Lev.  
\* *Dothidea*.

COLORADO FLORA. ADDITIONS, 1879.

947 *Anemone cylindrica*, Gray.  
935 *Ranunculus aquatilis*, L.,  
[var. *stagnatilis*, DC.  
936 *Aquilegia chrysantha*, Gray.  
1536\* *Delphinium azureum*, Mx.  
937 *Arabis perfoliata*, Lam. [var.  
938\* *Helianthemum* — [var.?  
939 *Lychnis Drummondii*, Wat.  
940 *Hypericum Scouleri*, Hooker.  
941 *Ampelopsis quinquefolia*, Mx.  
The western variety.  
942\* *Ceanothus velutinus*, Dougl.  
943 *Lupinus argenteus*, Pursh.  
944\* *Trifolium pratense*, L.  
945\* *repens*, L.  
946 *Medicago sativa*, L.  
872 *Petalostemon candidus*, Mx.  
934 *Psoralea hypogaea*, Nutt.  
614 *Amorpha fruticosa*, Nutt.  
869 *Astragalus flexuosus*, Dougl.  
948\* *Canadensis*, L.  
949 *Pattersonii*, Gray.  
950 *Glycyrrhiza lepidota*, Nutt.  
951 *Vicia trinecta*, Nutt.  
(=linearis?)  
912 *micrantha*, Nutt. [Hooker.  
914 *Neillia opulifolia*, Benth. &  
952\* *Geum Rossii*, Seringe, var.  
[molle, T. & G.  
953 *Potentilla arguta*, Pursh.  
303\* *gracilis*, Dougl.  
954\* *Pennsylvanica*, L., var.  
1537\* *Crataegus rivularis*, Nutt.  
955 *Saxifraga Jamesii*, Torrey.  
956\* *Euthera caespitosa*, Nutt.  
(*Caulescent* form.)  
957 *breviflora*, T. & G.  
635 *Cicuta maculata*, L.  
958\* *Berula angustifolia*, Koch.  
960\* *Liatris scariosa*, Willd.?  
(Probably distinct.)  
959\* *Kuhnia eupatorioides*, L.  
1538\* *Aster multiflorus*, Ait., var.  
*commutatus*, Gray.  
961 *Erigeron canum*, Gray.  
962\* *annuum*, Pers.  
1542\* *Parthenium incanum*, H. B.  
1543 *Heliopsis scabra*, Pers. [K?  
599\* *Lepachys columnaris*, T. & G.  
963\* var. *Tagetes*, Gray.  
964 *Thelesperma gracile*, Gray.  
809 *Ilymenopappus tenuifolius*,  
[Pursh.  
295 *Cnicus undulatus*, Gray.  
965 var. *ochrocentrus*, Gr.  
607 *Lygodesmia juncea*, Don.  
966\* *Sonchus asper*, Villars.  
967 *Lysimachia ciliata*, L.  
593 *Asclepias speciosa*, Torrey.  
987\* *Jamesii*, Torrey.  
988\* *incarnata*, L.  
989 *tuberosa*, L.

990 *Asclepias Hallii*, Gray.  
992\* *Acerites auriculatus*, Eng.  
968 *Gilia congesta*, Hooker, var.  
*erebrifolia*, Gray.  
971\* *Brittrichium Californicum*,  
DC., var. *subglochidiatum*.  
970 *leiolepis*, Wats. [Gray.  
972 *glomeratum*, DC.  
973 *Pentstemon glaber*, Pursh.  
[var. *cyananthus*, Gray.  
974 *gracilis*, Dougl.  
975 *Gratiola Virginiana*, L.  
848 *Pedicularis procera*, Gray.  
976 *Hedeoma Drummondii*, Gray.  
616 *hispida*, Pursh.  
291 *Stachys cordata*, Riddell.  
977\* *Mirabilis oxybaphoides*, Gray.  
978 *Oxybaphus hirsutus*, Sweet.  
979 *nyctagineus*, Sweet. [Torrey.  
980\* *Sarcobatus vermiculatus*,  
981 *Suaeda frutescens*, Forsk., var.  
982\* *Rumex salicifolius*, Weinm.  
871 *Polygonum erectum*, Watson.  
984\* *lappulifolium*, Ait., var. *in-*  
*canum*, Koch.  
1538\* *Bistorta*, L., var. *linearif-*  
*olium*, Watson.  
985 *amphibium*, L., var. *aquat-*  
*ium*, Willd.  
986\* *Pennsylvanicum*, L.  
991 *Argythamnia humilis*, Mull.  
993\* *Urtica urens*, L.  
994 *Pinus edulis*, Eng.  
995\* *Abies concolor*, Lindley.  
996\* *Alisma Plantago*, L., var.  
[*Americanum*, Gray.  
997 *Smilax herbacea*, L., var. *in-*  
*odora*.  
1539\* *Habenaria dilatata*, Gray.  
998\* *Yucca angustifolia*, Pursh.  
(Fls. and fruit, no leaves.)  
999\* *Luzula parviflora*, DC., var.  
*congesta*, Eng. (ms.)  
1000\* *Juncus nodosus*, L., var. (near  
to typical form.)  
969 *tenuis*, Willd., var.  
983 *Cyperus filiculmis*, Vahl.  
812 *Scirpus pungens*, Vahl.  
1540 *atrovirens*, Muhl.  
1541\* *Elyna spicata*, Schrad.  
1544\* *Carex Hallii*, Olney.  
1590\* *affinis*, R. Br.  
1596 *bromoides*, Schk.  
1582\* *siccata*, Dewey.  
303 *marcida*, Boott.  
263 *Hoodii*, Boott.  
105 *disticha*, Huds.  
248\* *muricata*, L.  
1583 var. *gracilis*, Boott.  
1584 *stellulata*, L., var. *scirpo-*  
*ides*, Carey.

1585 *Carex Liddoni*, Boott.  
1597 *seoparia*, Schk. [nor, Dew.  
1598 *straminea*, Schk., var. *mi-*  
1586\* *Jamesii*, Torr. Typ. form.  
1587 " var. (not *C. Nebraska*  
1588 *verticillata*, Btt. [kensis.)  
1595 *stricta*, Lam.  
1589\* *flava*, L., var. *Æderi*, W. Btt.  
1546 *Sporobolus asperifolius*, (Vil-  
fa, N. & M.)  
1545 *Muhlenbergia gracilis*, Gray.  
807 New species? near to  
[*glomerata*.  
65 *Oryzopsis asperifolia*, Mx.  
1547 *Stipa pennata*, L., var. *Amer-*  
*icana*, Vasey.  
1548 *Aristida purpurea*, Nutt., var.  
*Pendleriana*, Vasey.  
1549 *Leptocloa fascicularis*, Gray.  
1550\* *Melica bulbosa*, Geyer.  
754 *Glyceria airoides*, Thurber.  
1551 *Poa*. New species?  
1552\* *Bromus secalinus*, L.  
1553 *Triticum repens*, L., var. *com-*  
*paetum*, Vasey.  
1578 *repens*, L. Double spike-  
1579 *violaceum*, Hornem. [lets.  
1580 — Between *repens* and  
[*caninum*.  
1581 *Elymus Sibiricus*, L.  
1554 *Avena striata*, Mx.  
1555 *Phalaris arundinacea*, L.  
897 *Equisetum pratense*, Ehrh.  
1556\* *hyemalis*, L.

FUNGI.

1560 *Puccinia Physalidis*, Peck  
[n. sp.  
1561 *Uromyces excavatus*, DC.  
1562 *hyalinus*, Peck.  
1577\* *Lupini*, B. & C. [Link.  
1563 *Trichobasis Leguminosarum*,  
1564 *gaurinum*, Peck n. sp.  
1565 *Sorosporium Astragali*,  
[Peck n. sp.  
1574\* *atrum*, Peck n. sp.  
1566\* *Coleosporium minutum*, Bon.  
1567 *Æcidium Euphorbie*, Pers.  
1568 *hemisphaerium*, Peck.  
1569 *gaurina*, Peck n. sp.  
1570 *Psoraleae*, Peck. [Lev.  
1572 *Miosphaeria holosericea*,  
1573 *Sphaerella megastoma*,  
Peck n. sp.  
1575 *Erysiphe communis*?  
1576 *Melampsora Hartigii*, Thum.

KANSAS PLANTS.

1557\* *Viola pubescens*, Ait., var.  
*eriocarpa*, Nutt. (Fruit.)  
1558 *Æsculus arguta*, Buckley.  
1559 *Astragalus mollissimus*, Torr.

CORRECTIONS TO LIST OF 1878.

*Aster multiflorus*=var. *commutatus*, Gray, in part.—*Ranunculus aq.*, var. *stagn.*=var. *trichophyllus*, Chaix.—*Arabis hirsuta*=  
*perfoliata*, L., in part.—*Lychnis Drum.*=*Silene antirrhina*, L.—*Seseli Hallii*=*Cymopterus* (?) *anisatus*, Gray.—No. 140=Thus-  
*pium montanum*, Gray.—*Gentiana Am.*=var. *acuta*, Eng.—*Polemonium humile*=var. *pulchellum*, Gray.—*Onosmodium Carol.*=  
*molle*, Mx.—*Aristida purp.*, var. *Fendl.*=var. *longiseta*, Vasey, (in part.)—*Stipa spartea*=*comata*, Trin.—*Aira danth.*=*caespi-*  
*tosa*, L., var. *arctica*, Vasey.—No. 600=P. *rufescens*, Schrad.—No. 734=P. *pauciflorus*, Pursh.—*Potamogeton Vaseyi*=*pectinatus*,  
L.—*Delphinium Menziesii*=*bicolor*, Nutt.—*Abronia cycloptera*=*micrantha*, Torrey.—*Berberis Aquifolium*=*repens*, Lindley.—  
*Iris tonax*?=Missouriensis, Nutt.—*Rumex long.*=*occidentalis*, Watson.—*Zygadenus glaucus*=*elegans*, Pursh. Changes in  
synonyms are omitted.

# TO BOTANISTS.

In sending out this list of Utah plants, I am able to add a number of *new species* to those before reported. And I trust that this third list of species will be received with even more favor than its predecessors, for the number of new and desirable species is much larger than usual.

One-third of the collection was made at St. George, in southern Utah, from March 29th to April 14th. Quite a number of valuable plants were gathered on the way to Salt Lake City. An excursion was made in June to Frisco, where a large number of species were collected, and some new ones. During the Spring an almost complete collection was made of the plants peculiar to the valleys and foothills of Utah. I am indebted to the same gentlemen whose kindness I had occasion to mention last year, for railroad facilities; and especially to James Sharp, of the Utah Southern R. R. for such repeated courtesies as enabled me to add a number of new species to my list, and very many others of interest.

The sets of 1879 contain about 400 species; those of 1883, about 450 species; Colorado sets, 900 species. The *fungi*, containing a number of new species, will occupy a separate list.

It is my intention to spend the coming season in collecting through Utah, Nevada, California, and Arizona. Persons who desire live specimens should inform me at once.

MARCUS E. JONES, A. M.,  
Salt Lake City, Utah, U. S. A.

## FLORA OF UTAH. Second Fascicle.

COLLECTED BY MARCUS E. JONES, A. M.

1351	<i>Clematis Douglasii</i> , Hook.	(1352 is <i>N. obtusum</i> .)	1867	<i>Rhus glabra</i> , L.
1887	<i>alpina</i> , Mill., var. <i>Ochotensis</i> , Gray.	1846* <i>N. obtusum</i> , Nutt., var. <i>alpinum</i> , Watson.	1932	<i>Toxicodendron</i> , L.
1882	<i>verticillaris</i> , DC. (Fruit.)	1354 <i>Vesicaria montana</i> , Gray.	1608	<i>aromatica</i> , Ait., var. <i>trilobata</i> , Gray.
1607	<i>Anemone decapetala</i> , L.	1869* <i>alpina</i> , Nutt.	1934*	<i>Thermopsis montana</i> , Nutt.
1681*	<i>Myosurus aristatus</i> , Benth.	1730 <i>Camelina sativa</i> , Crantz.	1657	<i>Lupinus brevicaulis</i> , Watson.
1761	<i>Ranunculus aquatilis</i> , L., var. <i>trichophyllus</i> , Gray.	1627 <i>Capsella divaricata</i> , Walp.	1946	<i>parviflorus</i> , Nutt.
1715	<i>digitatus</i> , Hooker.	1431 <i>Bursa-pastoris</i> , Mench.	1956*	<i>laxiflorus</i> , Dougl.
1428*	<i>sceleratus</i> , L.	1611 <i>Lepidium Wrightii</i> , Gray.	(1187 is <i>argenteus</i> and 1439 is the var. <i>decumbens</i> , vide Wat.)	
1701*	<i>adoneus</i> , Gray, var.	1821 <i>Utahense</i> , n. sp. = <i>integrifolium</i>	1935*	<i>Trifolium subcaulescens</i> , Gray.
1349*	<i>Aquilegia canadensis</i> , James. ("A form.")	1430 <i>intermedium</i> , Gray.	1933*	<i>Melilotus officinalis</i> , Willd.
1712	<i>Delphinium Menziesii</i> , DC.	1896 <i>montanum</i> , Nutt.	1833	<i>Psoralea lanceolata</i> , Pursh.
1696	<i>bicolor</i> , Nutt.	1636 <i>alyssoides</i> , Gray.	1858	<i>Glycyrrhiza lepidota</i> , Nutt.
1429	<i>Actaea spicata</i> , L., var. <i>arguta</i> , Torrey.	1665 <i>Fremontii</i> , Watson.	1813	<i>Astragalus diphysus</i> , Gray.
1084	<i>Berberis repens</i> , Lindley. (Flowers.)	1925 <i>Physaria didymocarpa</i> , Gray.	1897	<i>lentiginosus</i> , Dougl.
1605	<i>Argemone hispida</i> , Gray.	1810 <i>Newberryi</i> , Gray.	1939*	<i>Mortoni</i> , Nutt.
1658	<i>Eschscholtzia Californica</i> , Cham., var. <i>caespitosa</i> , Brewer.	1926* <i>Thysanocarpus curvipes</i> , Hk.	1620	<i>nothoxys</i> , Gray.
1716	<i>minutiflora</i> , Watson.	1735 <i>Cleome integrifolia</i> , T. & G. (White flowers.)	1940*	<i>atratus</i> , Watson.
1767*	<i>Dicentra uniflora</i> , Kellogg.	1796 <i>lutea</i> , Hook.	1941*	<i>Pattersoni</i> , Gray.
1682	<i>Corydalis aurea</i> , Willd., var. <i>occidentalis</i> , Eng.	1749 <i>Viola cucullata</i> , Ait.	1938*	<i>humistratus</i> , Gray.
1734*	var. <i>curvisiliqua</i> , Eng.	1718 <i>canina</i> , L., var. <i>longipes</i> , <del>Watson</del>	1633	<i>amphioxys</i> , Gray?
1683	<i>Draba nemorosa</i> , L.	1677 <i>Nuttallii</i> , Pursh.	1679	<i>iodanthus</i> , Watson.
1799*	<i>stenoloba</i> , Ledeb.	1676 <i>Beckwithii</i> , T. & G., var.	1725	<i>Beckwithii</i> , T. & G.
1632	<i>Arabis longirostris</i> , Watson.	1359 <i>Saponaria Vaccaria</i> , L.	1743	<i>eriocarpus</i> , Watson.
1923*	var.	1839 <i>Silene antirrhina</i> , L.	1945*	<del>new</del> sp.
2124	<i>perfoliata</i> , Lam.	1431 <i>Menziesii</i> , Hook.	1443	<i>Utahensis</i> , T. & G.
1879	<i>hirsuta</i> , Scop.	1927* <i>Arenaria congesta</i> , Nutt.	1781	<i>Geyeri</i> , Gray.
1755	<i>Lyallii</i> , Watson. (1248 is <i>A. Drum.</i> .)	2123 <i>Fendleri</i> , Gray.	1797	<i>pictus</i> , var. <i>filifolius</i> , Gray.
1876	<i>Holboellii</i> , Hornem.	1818 <i>capillaris</i> , Poir.	1690	<i>Chamaeleuce</i> , Gray.
1650	<i>arcuata</i> , Gray.	1203* <i>verna</i> , L., var. <i>hirta</i> , <del>Watson</del>	1831	<i>juncus</i> , Gray.
1924*	var.	1362 <i>Sagina Linnæi</i> , Presl.	1943*	—
1811	<i>Streptanthus cordatus</i> , Nutt.	1638 <i>Claytonia perfoliata</i> , Donn.	1944*	—
1358	<i>Caulanthus hastatus</i> , Watson.	1709 var.	1942*	<i>procerns</i> , Gray. (?)
1841*	<i>Thelypodium sagittatum</i> , [Endl.]	1706 <i>Caroliniana</i> , Mx., var. <i>sesilifolia</i> , Torr.	1210*	<i>campestris</i> , Gray.
1648	<i>new species?</i>	1827 <i>Lewisia rediviva</i> , Pursh.	1898	<i>Oxytropis campestris</i> , L., var. <i>viscida</i> , <del>Watson</del>
1809	<i>Stanleya pinnatifida</i> , Nutt.	1928* <i>Hypericum Scouleri</i> , Hook.	1744	<i>Hedysarum Mackenzii</i> , Rich.
1903	<i>Erysimum cheiranthoides</i> , L.	1435 <i>Malva rotundifolia</i> , L.	1444	<i>Vicia Americana</i> , Muhl., var. <i>truncata</i> , Brower.
1355*	<i>asperum</i> , DC.	1015 <i>Malvastrum coccineum</i> , Gray.	1937	var. <i>linearis</i> , Watson.
1353	<i>Brassica alba</i> , Gray.	1931 var.	1619	<i>exigua</i> , Gray.
1432	<i>Barbarea vulgaris</i> , R. Br., var. <i>stricta</i> , Gray.	1628 <i>exile</i> , Gray.	1740	<i>Lathyrus polyphyllus</i> , Nutt.
1612	<i>Sisymbrium canescens</i> , Nutt.	1085* <i>Sphaeralcea acrifolia</i> , Nutt. (Very fine specimens.)	1445	<i>paluster</i> , L.
1845*	<i>Nasturtium palustre</i> , DC., var. <i>hispidum</i> , Fisch. & Mey.	1660 <i>Emoryi</i> , Torr.	1936	<i>polymorphus</i> , Nutt.
		1871 <i>Geranium incisum</i> , Nutt. (?)	1700	<i>ornatus</i> , Nutt.?
		1929* <i>Carolinianum</i> , L.	1446	<i>Prunus demissa</i> , Walp.
		1930* <i>Erodium Texanum</i> , Gray?	1630	<i>fasciculata</i> , Gray.
		1603 <i>Ceanothus velutinus</i> , Dougl.	1448	<i>Neillia Torreyi</i> , Watson.
		1437 <i>Acer grandidentatum</i> , Nutt.	1380	<i>Rubus Nutkanus</i> , Moench.
		1438 <i>Negundo aceroides</i> , Mench.	1449	<i>strigosus</i> , Mx.
			1850	<i>leucodermis</i> , Dougl.

\*Plants starred are not in the sets of the Second Fascicle.

HARVARD UNIVERSITY HERBARIUM.

THE GIFT OF



## FUNGI

Cymopterus terebinthinus.  
[T. & G.]

- montanus, Nutt.  
glauca, Nutt.  
glomeratus, Raf.?  
longipes, Watson.  
~~new species = Fendleri~~  
Peucedanum simplex, Watson.  
villosum, Nutt.  
bicolor, Watson.  
millefolium, Watson.  
Newberryi, Watson.  
Nevadense, Watson.  
Ferula multifida, Gray.  
Kelloggii ~~alluvialis, Torr~~  
Galium Aparine, L.  
asprellum, Mx.  
aspermum, Gray.  
boreale, L. (Fruit hairy.)  
Bloomeri, Gray.  
multiflorum, Kellogg.  
~~Chenopodium n. sp. = poliflorum~~  
Plectritis congesta, DC.  
Brickellia linifolia, Eaton.  
Californica, Gray.  
Chrysopsis villosa, Nutt., var.  
foliosa, Eaton.  
1944\* Aplopappus linearifolius, DC.  
1804 armerioides, Gray.  
1973\* var.  
1975\* Bigelovia Douglasii, Gray, var.  
puberula, Gray.  
1469\* Solidago pumila, T. & G.  
1082\* Aster arenarioides, Eaton.  
1980\* var.  
1981\* —  
1806 ericifolius, Rothrock.  
1886 elegans, T. & G.  
1189\* var. Engelmanni, Eaton.  
(1253 is a form.)  
1794 Townsendia Arizona, Gray.  
1823 Erigeron argentatus, Gray.  
1976\* compositus, Pursh, var. discoides, Gray.  
1205\* Eatonii, Gray.  
1828 tener, Gray.  
1385\* caespitosus, Nutt.  
1731 pumilus, Nutt.  
1826 concinnus, T. & G., var. condensatus, Eaton.  
1791 same, but rayless.  
1977 var. aphanactis, Gray.  
1234\* Coulteri, T. C. Porter.  
1859 armeriaefolius, Turez.  
1979 Canadensis, L.  
1668 Antennaria dimorpha, T. & G.  
1983\* Iva axillaris, Pursh, var. pubescens, Gray.  
1920 Fraxinaria Hookeriana, Nutt.  
1984\* Balsamorhiza macrophylla.  
1727 Hookeri, Nutt. [Nutt.  
1673 sagittata, Nutt.  
1391 Wyethia amplexicaulis, Nutt.  
1978\* ~~Helianthus~~ ~~n. sp.?~~  
1334 Helianthus Nuttallii, T. & G.  
1986\* Viguera ~~n. sp.?~~  
1470 Madia sativa, Molina, var.  
racemosa, Gray.  
1987\* glomerata, Hook.  
1982\* Hemizonella ~~n. sp.?~~  
1985\* Hemizonia —  
1721 Layia glandulosa, H. & A.  
1631 Actinolepis Wallacei, Gray.  
1988\* lanosa, Gray.

- 1783 Chamaetis stevioides, H. & A.  
1990\* var. ? (pappus acute.)  
1991\* maerantha, Eaton.  
1472 Douglasii, H. & A.  
1992 var. (glandular.)  
1989 Syntrophopappus Fremontii, [Gray.  
1993 Matricaria discoidea, DC.  
1881 Tanacetum diversifolium, Eat.  
1803 Tetradychia comosa, Gray.  
1471 spinosa, Hook. & Arn.  
1910 canescens, DC., var. incurmis, Gray.  
1994\* Senecio vulgaris, L.  
1996 aureus, L., var. multilobatus, Gray.  
1995\* Fendleri, Gray.  
1736 lugens, Rich., var.  
1598 hydrophilus, Nutt.  
1155\* Arnica Parryi, Gray.  
1905 Cnicus Drummondii, Gray.  
(Caulicent.)  
1995\* undulatus, Gray.  
1745 Centaurea Melitensis, L.  
1939\* Cichorium Intybus, L.  
1763 Tragopogon porrifolius, L.  
1732 Microseris nutans, Gray.  
1707 major, Gray.  
2001 var.  
2002\* linearifolia, Gray.  
1798 Stephanomeria exigua, Nutt.  
1849 var.  
2005\* Rafinesquia Neo-Mexicana, [Gray.  
1779 Glyptopleura marginata, Eat.  
1997\* setulosa, Gray.  
2004\* Malacothryx Coulteri, Gray.  
2000\* Californica, DC., var. glabrata, Eaton.  
2003\* ~~new species = Sonchus oregonensis~~  
1789 sonchoides, T. & G.  
1851 Crepis occidentalis, Nutt.  
2012\* var. erinita, Gray.  
1857 acuminata, Nutt.  
1759 glauca, T. & G.  
1758 runcinata, T. & G.  
2013\* ~~new species = Sonchus oregonensis~~  
1756 Trochodon glaucum, Nutt., var. taraxicifolium, Gray.  
2009 glaucum, Nutt., var. laciniatum, Gray.  
2010 var.  
1733 aurantiacum, Hook.  
1213\* grandiflorum, Gray, var. tenuifolium, Gray.  
2011\* var.  
1872 Chilense, Gray.  
1741 Lygodesmia grandiflora, T. & G.  
2006\* spinosa, Nutt.  
1801 exigua, Gray.  
2008\* Lactuca Ludoviciana, Nutt.  
1652 circumcissum, Gray.  
1913 Canadensis, L.  
2007\* leucophylla, Gray.  
1324 Sonchus oregonensis, L.  
2014 Specularia perfoliata, A. DC.  
2018\* Vaccinium caespitosum, Mx., var. cuneifolium, Nutt.  
1181 Pyrola rotundifolia, L., var. inermata, Hook.  
2015 Dodecatheon Media, L., var.  
1393 Primula Parryi, Gray.  
2016\* Lysimachia ciliata, L.  
2025 Fraxinus anomala, Torr.  
1645 viridis, Mx.  
1863 Apocynum cannabinum, L.

- 2019\* Asclepiodora decumbens, Gr.  
2017\* Asclepias incarnata, L., var. longifolia, Gray.  
1496 speciosa, Torr.  
2020\* Gentiana simplex, Gray. (Soda Lake, Southeastern Idaho.)  
1244\* Swertia perennis, L., var. obtusa, Grisob.  
1878 Fraxea speciosa, Dougl.  
1698 Phlox canescens, T. & G.  
2021 caespitosa, Nutt.  
1230\* Douglasii, Hook.  
1708 longifolia, Nutt., var. Stansburyi, Gray.  
2022\* var. brevifolia, Gray.  
1873 Collomia tenella, Gray.  
1840 grandiflora, Dougl.  
1864 gracilis, Dougl.  
1656 Gilia demissa, Gray.  
1902 liniflora, Benth., var. phar-nacoides, Gray.  
2027\* Bigelovii, Gray.  
1408 Watsoni, Gray.  
1784 pungens, Benth., var. squarrosa, Gray.  
1788 floecosa, Gray.  
1816 congesta, Hook.  
1662 polycladon, Torr.  
1772 depressa, Jones, ~~n. sp. = tenerima, Gray.~~  
1659 ~~n. sp. = macrophyllum~~  
2024 inconspicua, Dougl.  
1617 var. sinuata, Gray.  
2023 leptomeria, Gray.  
1651 var.  
1742\* var.  
2026\* filiformis, Parry.  
2028\* ~~n. sp. =~~  
1884 Polemonium caeruleum, L.  
1672 micranthum, Benth.  
1666 Hydrophyllum capitatum, [Dougl.  
1704 occidentale, Gray, var. Watsoni, Gray.  
1738 Nemophila breviflora, Gray.  
1407 Phacelia circinata, Jacq. f.  
2030\* crenulata, Torr.  
1723 Menziesii, Torr.  
1487 cephalotes, Gray.  
2029 rotundifolia, Torr.  
1609 micrantha, Torr.  
1626 Ivesiana, Torr.  
1610 Fremontii, Torr.  
1653 Nana demissum, Gray.  
1780 Coldenia Nuttallii, Hook.  
1622 Peetocarya linearis, DC. (Chilensis, DC.)  
1667 Echinospermum Redowskii, Lehm., var. occidentale, Watson.  
2031\* var. cupulatum, Gray.  
2032\* Eritrichium Californicum, DC.  
1652 circumcissum, Gray.  
1661 micranthum, Torr.  
1621 barbigerrum, Gray.  
1611 ~~n. sp. =~~  
1483 leiocarpum, Watson.  
2033\* muriculatum, A. DC., var. ambiguum, Gray.  
2034 pterocaryum, Torr.  
1692 glomeratum, DC., var. humile, Gray.  
2035\* fulvocanescens, Gray.  
1640 Amsinckia tessellata, Gray.  
2038 Mertensia oblongifolia, Don.  
2037\* paniculata, Don.

- 1669 Lithospermum pilosum, Nutt.  
2040 Convolvulus sepium, L.  
2036\* Cressa Cretica, L., var. Truxillensis, Choisy.  
1918 Cuscuta tenuiflora, Eng.  
1915 Californica, Choisy, var. breviflora, Eng.  
1875 var. (near to var. graciliflora, Eng.)  
2039\* salina, Eug.  
1914 eurtia, Eng. (ms.)  
1485 Solanum triflorum, Nutt.  
2041\* nigrum, L.  
2042\* Physalis pubescens, L.  
1624 Lycium Andersonii, Gray.  
2043\* Datura Tatula, L.  
2037\* Nicotiana Palmeri, Gray.  
1856 attenuata, Torr.  
2047\* Verbascum Thapsus, L.  
2049\* Antirrhinum Kingii, Watson.  
2048\* filipes, Gray.  
1396 Collinsia parviflora, Dougl.  
1829 Pentstemon Eatonii, Gray.  
1406 glaber, Pursh, var. cyananthus, Gray.  
1819 Parryi, Gray.  
1812 Wrightii, Hook. (?)  
1820 Palmeri, Gray.  
2045\* humilis, Nutt.  
1405 var. brevifolius, Gray.  
2046\* ambiguum, Torr., var. Thurberi, Gray.  
2044 Kingii, Watson.  
1883 azureus, Benth., var. ambiguum, Gray.  
1888 var.  
1655 Minulus Parryi, Gray.  
2050\* luteus, L.  
1659\* var. depauperatus, Gray.  
1801 floribundus, Dougl.  
2051 Synthlipsis pinnatifida, Watson.  
1892 Castilleja linearifolia, Benth.  
1631 parviflora, Bong.  
1403 Cordylanthus canescens, Gray.  
2052\* Pedicularis centranthera, Gr.  
2058\* Aphyllon uniflorum, Gray.  
2053 fasciculatum, Gray.  
1847 multiflorum, Gray.  
1487 Verbena hastata, L.  
1109\* Moradella odoratissima, Bth.  
1904 Dracocephalum parviflorum, [Nutt.  
2055\* Scutellaria antirrhinoides, Bth.  
2054\* galericulata, L.  
2056 Brunella vulgaris, L.  
1397 Stachys palustris, L.  
2060\* Plantago lanceolata, L.  
1832 Plantago Patagonica, Jacq.  
2059\* var. aristata, Gray.  
1625 var.  
1865 Oxybaphus angustifolius, [Sweet.  
1337\* Abronia fragrans, Nutt.  
1814 Eriogonum caespitosum, Nutt., var. (E. Andinum.)  
1140 chrysocephalum, Gray.  
1785 ovalifolium, Nutt.  
1775 villiflorum, Gray.  
1877 microtheum, Nutt., var. Fendlerianum, T. & G.?  
1795 var. leptocladon, T. & G.  
1327\* (1530\* also) brevicule, Nutt.  
1774 gracile, Benth., var. effusum, T. & G.  
1815 ~~n. sp. =~~ ~~puberulum~~

- 2062\* deflexum, Torr.  
1793 nutans, T. & G.  
2064\* Parryi, Gray.  
2063 cernuum, Nutt.  
2072\* Thurberi, Torr.?  
1336\* Thomasii, Torr.  
2070 reniforme, Torr.  
2073\* inflatum, Torr.  
1782 angulosum, Benth.  
1618 Pterostegia drymarioides, [F. & M.  
2067\* Centrostegia Thurberi, Gray.  
2065 Rumex salicifolius, Wein.  
2066 crispus, L.  
1729 venosus, Pursh.  
1643 hymenosepalus, Torr.  
1861 Polygonum erectum, L.  
1855 tenue, Mx.  
1221\* minimum, Watson.  
1067\* Persicaria, L.  
1495\* Hydrophyllum, L.  
1060\* Suckia intermedia, Watson.  
1017\* depressa, var. erecta, Wat.  
2071\* ~~Telekya n. sp. = Mendocino~~  
1491 Kochia Americana, Watson.  
1776\* Chenopodium leptophyllum, var. oblongifolium, Watson.  
1490\* rubrum, L.  
1027\* Botrys, L.  
1330\* Atriplex patula, L., var. subspicatum, Watson.  
1654 confertifolia, Watson, var.  
1800 canescens, James.  
1091\* Nuttallii, Watson.  
1306\* truncata, Gray.  
1616 Grayia polygaloides, H. & A.  
1642 Eurotia lanata, Moq.  
1885 Shephardia Canadensis, Nutt.  
2069\* argentea, Nutt.  
2074\* Celtis occidentalis, var. pumila, Gray.  
1848 Urtica [gracilis, Ait., var. occidentalis, Watson]  
2075 Parietaria Pennsylvanica, [Muhl.  
1613 debilis, Forsk.  
2068\* Cannabis sativa, L.  
1497 Betula occidentalis, Hook.  
1899 glandulosa, Mx.  
1711 Salix nigra, Marsh.  
1750 lasiandra, Benth., var. Fendleriana, Bebb.  
1644 longifolia, Muhl.  
1710 var. argyrophylla, And.  
1702 cordata, Muhl.  
1703 flavescens, Nutt.  
1751 rostrata, Rich.  
1714 Populus angustifolia, James.  
1611 Fremontii, var. Wislizeni, [Watson.  
1719 tremuloides, Mx.  
1663 Euphorbia albomarginata, [T. & G.  
2077 Fendleri, T. & G.  
2076 serpyllifolia, Pers.  
1919 dentata, Mx.  
1747 dictyosperma, Fisch. & Mey.  
1722 Quercus undulata, Torr., var. Gunnisonii, Eng.  
2078\* reticulata, Torr.  
2081 Phoradendron juniperinum, [Eng.  
1637 Comandra pallida, DC.  
1900 Abies subalpina, var. fallax, [Eng.  
2080\* concolor, Lindl.  
1901 Picea pungens, Eng. (P. Parryi.)  
1870 Pseudotsuga Douglasii, Carr.  
2083 Pinus flexilis, James.

1922	<i>P. monophylla</i> , Torr. & Fren.	1664	<i>Androstephium breviflorum</i> .	2108	<i>Aristida purpurea</i> , Nutt., var.
1835	<i>Juniperus Californica</i> , Carri- ere, var. <i>Utahensis</i> Eng.	2095*	— [Watson.]		<i>longiseta</i> , Vasey.
2082	<i>Virginiana</i> , L.	1499	<i>Smilacina amplexicaulis</i> , Nutt.	1787	var. <i>Fendleriana</i> , Vasey.
1802	<i>Ephedra antisiphilitica</i> , C. A. Meyer.	1501	<i>stellata</i> , Desf.	1790	<i>Pleuraphis Jamesii</i> , Torr.
2087*	<i>trifurca</i> , Torr.	1866	<i>Prosartes trachycarpa</i> , Wats'n.	2116*	<i>Tricuspis pulchella</i> , Torr.
1893	<i>Habenaria dilatata</i> , Gray.	1412	<i>Veratrum album</i> , L.	2109*	<i>Koeleria cristata</i> , Pers.
2084*	<i>Epipactis gigantea</i> , Dougl.	1242*	<i>Zygadenus elegans</i> , Pursh.	2110	<i>Glyceria airoides</i> , Nutt., var.
1908	<i>Spiranthes Romanzoviana</i> , [Cham.]	2091*	<i>Nuttallii</i> , Gray.	1757	<i>Catabrosa aquatica</i> , Beauv.
2089*	<i>Listera convallarioides</i> , Hook.	1674	<i>paniculatus</i> , Watson.	1005*	<i>Brizopyrum spicatum</i> , Hook., var. <i>strictum</i> , Gray.
1762	<i>Sisyrinchium mucronatum</i> , Mx	1504	<i>Scirpus pungens</i> , Vahl.	2118	<i>Poa annua</i> , L., "var." (Munro)
1635	<i>bellum</i> , Watson.	2096*	<i>Torreyi</i> , Olney.	2119	<i>Andina</i> , Nutt., var. <i>pur-</i> [purea, Vasey.]
2088*	<i>Alisma Plantago</i> , L., var. <i>Am-</i> <i>ericum</i> , Gray.	1016	<i>maritimus</i> , L.	2120*	<i>Kingii</i> , Watson.
1864	var. (linear leaves.)	1853	<i>microcarpus</i> , Presl.	1434*	<i>caesia</i> , Sm.
2085*	<i>Lemna Valdeana</i> (?)	2097*	—	1649	<i>Festuca tenella</i> , Willd., var. ( <i>F. scitara</i> , Nutt.)
1693	<i>minor</i> , L.	1532*	<i>Carex foetida</i> , Allioni.	1868	<i>occidentalis</i> , Hook., var.
2079*	<i>polyrrhiza</i> , L.	2104*	<i>Hoodii</i> , Boott.	1326	<i>Triticum egilopoides</i> , Turcz.
1041*	<i>Zannichellia palustris</i> , L.	2105*	<i>marceia</i> , Boott.	2114*	<i>Hordeum pratense</i> , Huds.
2086*	<i>Typha latifolia</i> , L.	2103*	<i>scirpoidea</i> , Mx.	2111*	<i>Trisetum alpestre</i> , Beauv.
2092*	<i>Fritillaria atropurpurea</i> , Nutt.	2098*	<i>stipata</i> , Muhl.	2117*	—
1717	<i>pudica</i> , Spreng.	2101	<i>tenella</i> , Schk.	2113*	<i>Panicum Crus-Galli</i> , L.
1705	<i>Erythronium grandiflorum</i> , [Pursh.]	2099*	<i>stellata</i> , L.	2124*	<i>Conechus tribuloides</i> , L.
1766	<i>Calochortus Nuttallii</i> , T. & G.	1535*	<i>Jamesii</i> , Torr.	1889	<i>Equisetum levigatum</i> , A. Br.
2093*	<i>flexuosus</i> , Watson.	2102	var. ( <i>C. Nebraskaensis</i> .)	1606	<i>Notholana Parryi</i> , Eaton.
1770	<i>Allium acuminatum</i> , Hook.	2112*	<i>Oryzopsis micrantha</i> , Thurb.	2122	<i>Cheilanthes lanuginosa</i> , Nutt.
1752	<i>bisectrum</i> , Watson.	2090*	<i>Vaseya comata</i> , Thurb.	1511	<i>Pellaea densa</i> , Hook.
2094*	n. sp.?	1776	<i>Eriocoma cuspidata</i> , Nutt.	2121	<i>Adiantum Capillus-Veneris</i> , L.
		2105*	<i>Stipa spartea</i> , Trin.	1599*	<i>Isoetes Bolanderi</i> , Eng.
		1786	<i>comata</i> , Trin.	2125*	<i>Draba cuneifolia</i> , Nutt.
		2106	<i>viridula</i> , Trin., var.		
		2107*	var.		
		1805	<i>speciosa</i> , Torr.		

Attention is called to the following changes: Nos. 1349, 1248, 1372, 1203, 1187, 1439, 1210, 1447, 1444, 1446, 1450, 1231 *n. sp.*, 1374, 1148, 1170, 1469, 1385, 1234, 1205, 1155, 1213, 1230, 1059, 1403, 1109, 1337, 1140, 1327, 1530, 1336, 1221, 1067, 1495, 1060, 1176, 1330, 1591, 1091, 1306, 1491, 1027, 1304, 1599. A few of these are errors of mine; the most are changes made necessary by recent studies of Gray, Watson, etc.

#### COLORADO FLORA.

Both the var. *trifida* and *pinnatisecta*, of *Erigeron compositus* are included in the No. 170 of my 1878 collection.

CORRECTIONS TO COLORADO FLORA.—*Polemonium cer.* var.—typ. f. 933—*Astragalus oroboides*, var. *Am. A. camp.*—*adsurgens*, (a form.) *Festuca ovina*, var.—*tenella*, Willd. *Lupinus arg.* var. *dec.*—var. *argophylla*. 749—*Astrag. campestris*. *Geum strictum*—*macrophyllum*. *G. uac.*—*strictum*.

Dr. Gray decides that *Erigeron radicans*, Hook., is not *E. glandulosus*, Porter—(my plant is the latter)—though two years ago he suggested that they were identical. In a private letter he says that my Colorado *Brickellia Californica* is probably *B. Wrightii*, "at least not Californica." *Saxifraga serpyllifolia*—*chrysantha*, Gray. (See Proc. Am. Acad.)

The utmost pains have been taken to avoid errors. If any authorities, orthography, or names are thought to be erroneous, it will be a favor to me to be notified of it.



# TO BOTANISTS.

The following list of species represents my work in California during the time included between June 20th and August 4th. Nearly the whole collection was made at Santa Cruz, on the coast, and at Soda Springs, three miles below Summit, in the Sierras, on the Central Pacific Railroad. Some very interesting plants were collected on the road in Nevada, especially at Wells. The whole collection contains over 900 species.

I am greatly indebted to the Superintendent, General Passenger Agent, and Mr. B. B. Redding, of the Central Pacific Railroad, for facilities given me over their road, which made so large a collection possible in so short a time. The interest taken by these men in everything pertaining to the welfare of their State is well known, and would require no mention here were it not for their personal interest in my work. At least a dozen new species were discovered, and quite a number of others were added to the already well known flora of the State.

I have been able to use both volumes of the "Flora of California" this year, and so have made some changes in synonyms, and also have corrected some common errors.

The sets contain 507 species. Plants starred are not in the sets.

It is my intention to spend the entire coming season in completing the exploration of the coast, and hope to add a much larger number of species to the collection. Seeds, roots and living plants will be collected by request, as well as herbarium specimens. All communications should be addressed to—

MARCUS E. JONES, A. M.,  
Salt Lake City, Utah, U. S. A.

## Flora of California.—First Fascicle.

COLLECTED BY MARCUS E. JONES, A. M.

2335	<i>Clematis ligusticifolia</i> , Nutt.	2420	<i>Arenaria capillaris</i> , Poir.	2332	<i>truncatus</i> , Nutt.
	var. <i>Californica</i> , Watson.	2643*	<i>Douglasii</i> , T. & G.	2664*	<i>hirsutissimus</i> , Benth.
2585	<i>Thalictrum polycarpum</i> , Watson.	2627*	<i>Sagina Linnæi</i> , Presl.	2669	<i>Trifolium n. sp. (?)</i>
2485	<i>Ranunculus flammula</i> , L.	2641	<i>Lepigonum macrothecum</i> , F. & M.		<i>multicaule</i> , n. sp. <i>monanthum</i>
2591	<i>Californicus</i> , Benth.	2642*	var.	2519	<i>longipes</i> , Nutt.
2614*	<i>Aquilegia truncata</i> , F. & M.	2369	medium, Fries.	2445	<i>Kingii</i> , Watson.
2631*	<i>Delphinium simplex</i> , Dougl.	2347	<i>Pentstemon ramosissima</i> , H. & A.	2673*	<i>Macraei</i> Hooker & Arnot.
2410	<i>decorum</i> , F. & M. var.	2645*	<i>Portulaca oleracea</i> , L.	2329	<i>ciliatum</i> , Nutt.
	<i>Nevadense</i> , Watson.	2368	<i>Calandrinia Menziesii</i> , Hook.	2674*	var. <i>gracile</i>
2353	<i>Californicum</i> , T. & G.	2630*	<i>Claytonia perfoliata</i> , Don.	2675*	<i>gracilentum</i> , Torr. & Gray.
2571	<i>glaucom</i> , Watson.	2628*	<i>Chamissonis</i> , Esch.	2676	<i>involutum</i> , Willd.
2543	<i>Aconitum Columbianum</i> , Nutt.	2629*	<i>triphyllo</i> , Watson.	2264	<i>tridentatum</i> , Lindley.
2632*	<i>Actæa spicata</i> , L., var.	2402	<i>Spraguea umbellata</i> , Torrey.	2263	var. <i>obtusiflorum</i> , Watson.
	<i>arguta</i> , Torrey.	2460	var. <i>montana</i> , Jones, <i>Nev.</i>	2672*	var. <i>melananthum</i> , Watson.
2615*	<i>Paeonia Brownii</i> , Dougl.	2648*	<i>Hypericum Scouleri</i> , Hooker.	2262	<i>pauciflorum</i> , Nutt.
2616*	<i>Berberis repens</i> , Lindley.	2647	<i>anagalloides</i> , Cham. & Schl.	2595	<i>microcephalum</i> , Pursh.
2617*	<i>Nuphar polyccephalum</i> , Eng.	2649*	<i>Malva borealis</i> , Wallman.	2230	var.
2315	<i>Platystemon Californicus</i> , Benth.	2433	<i>Sidalcea malvaeflora</i> , Gray.	2230	<i>microdon</i> , Hooker & Arnot.
2226	<i>Eschscholtzia Californica</i> , Cham.	2556	<i>humilis</i> , Gray.	2497	<i>cyathiferum</i> , Lindley.
2622*	<i>Alyssum maritimum</i> , L.	2792*	<i>Linum perenne</i> , L.	2671*	<i>barbigerum</i> , Torrey.
2568	<i>Draba stenoloba</i> , Ledeb.	2854*	<i>spergulinum</i> , Gray.	2670*	<i>fucatum</i> , Lindley.
2635*	<i>Dentaria tenella</i> , Pursh.	2650*	<i>Geranium Carolinianum</i> , L.	2677*	<i>Melilotus parviflora</i> , Desf.
2636*	<i>Cardamine oligosperma</i> , Nutt.	2651*	<i>Erodium cicutarium</i> , L'Her.	2678*	<i>alba</i> , Lam.
2564	<i>Arabis Lyallii</i> , Watson.	2274	<i>Oxalis Oregana</i> , Nutt.	2679*	<i>Medicago sativa</i> , L.
2619*	<i>Holboellii</i> , Hornem.	2652*	<i>corniculata</i> , L.	2680*	<i>denticulata</i> , Willd.
2505	<i>Streptanthus tortuosus</i> , Kellogg.	2653*	<i>Euonymus occidentalis</i> , Nutt.	2681*	<i>Hosackia crassifolia</i> , Benth.
2618*	<i>Cheiranthus Menziesii</i> , B. & H.	2258	<i>Rhamnus Californica</i> , Esch.	2682*	<i>oblongifolia</i> , Benth.
2640*	<i>Ceanothus pilosus</i> , Watson.	2654*	var. <i>tomentella</i> , Watson.	2501	<i>Torreyi</i> , Gray.
2620*	<i>Erysimum asperum</i> , DC.	2554	<i>Purshiana</i> , DC.	2683	var. <i>Nevadensis</i> , Gray.
2633*	<i>Brassica nigra</i> , Boissier.	2656*	<i>Ceanothus thyrsiflorus</i> , Esch.	2234	<i>rigida</i> , Benth.
2621*	<i>Barbarea vulgaris</i> , R. Br., var.	2468	<i>velutinus</i> , Dougl.	2260	<i>maritima</i> , Nutt.
	<i>arcuata</i> , Koch.	2456	<i>cordulatus</i> , Kellogg.	2684*	var. (perfectly smooth.)
2414	<i>Sisymbrium incisum</i> , Eng.	2242	<i>papillosus</i> , Torr. & Gray.	2228	<i>strigosa</i> , Nutt.
2634*	<i>reflexum</i> , Nutt.	2657*	<i>prostratus</i> , Benth.	2266	<i>parviflora</i> , Benth.
2336	<i>Nasturtium obtusum</i> , Nutt.	2204	<i>Esculus Californica</i> , Nutt.	2265	<i>Purshiana</i> , Benth.
2638*	<i>officinale</i> , R. Br.	2477	<i>Acer glabrum</i> , Torrey.	2685*	<i>subpinnata</i> , F. & G.
2639*	<i>Lepidium intermedium</i> , Gr.	2300	<i>Negundo Californicum</i> , T. & G.	2259	<i>brachycarpa</i> , Benth.
	(with petals)	2141	<i>Rhus laurina</i> , Nutt.	2257	<i>glabra</i> , Torrey.
2391	<i>Senebiera didyma</i> , Persoon.	2660*	<i>Thermopsis Californica</i> , Watson.		<i>decumbens</i> , Benth.
2254	<i>Helianthemum scoparium</i> , Nutt.	2661*	<i>Pickeringia Montana</i> , Nutt.	2686	var. <i>Nevadensis</i> , Watson.
2646	<i>Viola ocellata</i> , Torr. & Gray.	2322	<i>Lupinus arboreus</i> , Sims.	2331	<i>tomentosa</i> , Hooker & Arnot.
2271	<i>armentosa</i> , Dougl.	2662*	var.	2365	<i>Psoralea orbicularis</i> , Lindley.
2659	<i>Polygala cucullata</i> , Benth.	2380	<i>Chamissonis</i> , Eschscholtz.	2692*	<i>strobilina</i> , Hooker & Arnot.
2318	<i>Frankenia grandifolia</i> , Cham. &	2663*	<i>rivularis</i> , Douglas.	2323	<i>macrostachya</i> , DC.
2502	<i>Silene Lyallii</i> , Watson.	2324	var. <i>latifolius</i> , Watson.	2691*	<i>physodes</i> , Dougl.
2325	<i>Gallica</i> , L.	2432	<i>Burkei</i> , Watson.	2690*	<i>Astragalus Purshii</i> , Dougl.
2623*	<i>Menziesii</i> , Hooker.	2411	<i>Andersoni</i> , Watson.	2687*	<i>Vicia gigantea</i> , Hooker.
2624*	<i>Californica</i> , Durand.	2546	var. (?) <i>Grayi</i> , Watson.	2686*	<i>exigua</i> , Nutt.
2625*	<i>occidentalis</i> , Watson.	2406	<i>calcaratus</i> , Kellogg.	2588*	<i>Lathyrus vestitus</i> , Nutt.
2430	<i>verecunda</i> , Watson.	2395	<i>minimus</i> , Dougl.	2693*	<i>Prunus emarginata</i> , Walpers.
2644*	<i>Cerastium viscosum</i> , L.	2261	<i>nanus</i> , Dougl.	2452	<i>Spiræa betulæfolia</i> , Pallas.
2212	<i>Stellaria media</i> , L.	2665*	<i>micranthus</i> , Dougl.	2506	<i>discolor</i> , Pursh, var. <i>dumosa</i> , W.
2412	<i>umbellata</i> , Turcz.	2666*	var. <i>bicolor</i> , Watson.	2694*	<i>Neillia opulifolia</i> , Benth. & Hook.
2626*	<i>longipes</i> , Goldie.	2667	<i>trifidus</i> , Torrey.	2555	<i>Rubus Nutkanus</i> , Mocino.



- 2695 *Rubus ursinus*, Cham. & Schl.  
2696 *Purshia tridentata*, DC.  
2697\* *Geum macrophyllum*, Willd.  
2698\* *Fragaria Virginiana*, Ehrh.  
var. *Illinoensis*, Gray.  
2699\* *Potentilla glandulosa*, Lindl.  
2481 var. *Nevadensis*, Watson.  
2700 *rivalis*, Nuttall, var. *mille-*  
*grana*, Watson.  
2523 *Breweri*, Watson. *?*  
2551 *var. (?)*  
2536 *gracilis*, Dougl., var. *label-*  
*liformis*, T. & G.  
2706\* *gelida*, Meyer.  
2705\* *fruticosa*, L.  
2409 *Horkelia fusca*, Lindley.  
2251 *Californica*, Cham. & Schl.  
2238 *Adenostoma fasciculatum*, H. & A.  
2702\* *Rosa Californica*, Cham. & Schl.  
2703\* var. *ultramontana*, Watson.  
2704\* *gymnocarpa*, Nutt.  
2701\* *Pirus sambucifolia*, Cham. & Schl.  
2711\* *Saxifraga Virginiana*, Mx.  
2713\* *nivalis*, L.  
2712\* *integrifolia*, Hooker.  
2413 *bryophora*, Gray.  
2567 *punctata*, L.  
2279 *Boykinia occidentalis*, T. & G.  
2710\* *Tellima grandiflora*, Dougl.  
2233 *Tiarella unifoliata*, Hooker.  
2566 *Mitella Breweri*, Gray.  
2510 *Heuchera rubescens*, Torrey.  
2708 *mierantha*, Dougl.  
2658\* *Whipplea modesta*, Torrey.  
2378 *Ribes Menziesii*, Pursh.  
2364 var.  
2508 var.  
2476 *leptanthum*, Gray.  
2202 *divaricatum*, Dougl.  
2559 *lacustre*, Poir., var. *molle*, Gray.  
2707\* *viscosissimum*, Pursh.  
2372 *sanguineum*, Pursh.  
var. *malvaceum*, Watson.  
var. *variegatum*, Watson.  
2509 *Sedum Rhodiola*, DC.  
2580 *obtusatum*, Gray.  
2714\* *Lythrum alatum*, Pursh.  
var. *linearifolium*, Gray.  
2728\* *Epilobium spicatum*, L.  
2494 *coloratum*, Muhl.  
2727 *origanifolium*, Lam.  
(pubescent.)  
2726\* *Franciscanum*, Barbey.  
2725\* *glaberrimum*, Barbey.  
2586 *paniculatum*, Nutt.  
2724 *Gayophytum racemosum*, T. & G.  
2403 *diffusum*, T. & G.  
2722\* (*Eriogonum biennis*, L., var.  
*hirsutissima*, Gray.  
2721\* *heterantha*, Nutt.  
2371 *bistorta*, Nutt.  
2231 *micrantha*, Hornemann.  
2723\* *dentata*, Cavanilles.  
2229 *strigulosa*, T. & G.  
2295 *Godetia quadrivulnera*, Spach.  
2720\* *tenella*, Watson. *?*  
2348 *amena*, Lilja.  
2255 *Clarkia elegans*, Dougl.  
2719\* *rhomboidea*, Dougl.  
2718\* *Eucharidium concinnum*, F. & M.  
2358 *Boisduvalia densiflora*, Watson.  
2715 *glabella*, Watson. *?*  
2717\* *Heterogaura Californica*, Roth.  
2716 *Circaea Pacifica*, Asch. & Mag.  
2729\* *Mentzelia dispersa*, Watson.  
2267 *Megarrhiza Californica*, Torrey.  
2334 *Datisca glomerata*, B. & H.  
2730\* *Mesembryanthemum aquilat-*  
*erale*, Haworth.  
2270 *Mollugo verticillata*, L.  
2288 *Eryngium petiolatum*, Hooker,  
var. *armatum*, Watson.  
2735\* *Sanicula Menziesii*, H. & A.  
2404 *tuberosa*, Torrey.  
2527 *Carum Gairdneri*, B. & H.  
2291 *Kelloggii*, Gray.  
2734\* *Osmorrhiza nuda*, Torrey.  
2511 *Glycosma occidentale*, Nutt.  
2733\* (*Eriogonum Californica*, Watson.  
2397 *Ligusticum apiifolium*, B. & H.  
2582 *Selinum capitellatum*, B. & H.  
2584 *Angelica Breweri*, Gray.  
2421 *Pseudanemum macrocarpum*, Nutt.  
2732\* *Heracleum lanatum*, Michx.  
2731\* *Ferula dissoluta*, Watson.  
2319 *Daucus pusillus*, Michx.  
2375 *Aralia Californica*, Watson.  
2736\* *Cornus Californica*, Meyer.  
2453 *stolonifera*, Mx.  
2302 *Sambucus glauca*, Nutt.  
2737 *racemosa*, L.  
2289 *Symphoricarpos racemosus*, Mx.  
2469 *oreophilus*, Gray.  
2738\* *Lonicera hispidula*, Dougl., var.  
*subspicata*, Gray.  
2376 var. *vacillans*, Gray.  
2739\* *involuta*, Banks.  
2405 *conjugalis*, Kellogg.  
2440 *Kelloggii galioides*, Torrey.  
2214 *Galium Californicum*, H. & A.  
2245 *Nuttallii*, Gray.  
2454 *bifolium*, Watson.  
2527 *trifidum*, L.  
2473 *multiflorum*, Kellogg.  
2900\* *Valeriana sylvatica*, Rich.  
2607 *Eupatorium occidentale*, Hooker.  
2314 *Grindelia robusta*, Nutt.,  
var. *latifolia*, Gray.  
2750\* *Pacifica*, Jones, n. sp. *?*  
2606 *Chrysopsis (?)* *?*  
2749 *Oregana*, Gray. *?*  
2489 *Breweri*, Gray. *?*  
2748 *Aplopappus Bloomeri*, Gray.  
2747\* *Bigelovia graveolens*, Gray.  
2745\* *Solidago occidentalis*, Nutt.  
2746\* *Californica*, Nutt.  
2320 *Corethrogyne filaginifolia*, Nutt.  
2744\* *Aster canescens*, Pursh.  
2743\* *radulinus*, Gray.  
2742\* *adscendens*, Lindley.  
2541 var.  
2525 *integrifolius*, Nutt.  
2532 *Andersonii*, Gray.  
2374 *Eriogonum foliosum*, Nutt.  
2747\* *glabellus*, Nutt. *?*  
2431 *salsuginosus*, Gray.  
2741\* *Coulteri*, Porter. *?*  
2740\* *Canadensis*, L.  
2382 *Baccharis pilularis*, DC.  
2273 *Douglasii*, DC.  
2757\* *Adenocaulon bicolor*, Hooker.  
2759\* *Psilocarphus tenellus*, Nutt.  
2758\* *Pilago Californica*, Nutt.  
2544 *Antennaria dioica*, Gaertn.  
2756\* *alpina*, Gaertn.  
2755\* *luzuloides*, T. & G., var.  
*argentea*, Gray.  
2390 *Anaphalis margaritacea*, Benth.  
2753\* *Gnaphalium decurrens*, Ives.  
2754\* var.  
2301 *Sprengelii*, Hook. & Arn.  
2752\* *microcephalum*, Nutt.  
2388 *ramosissimum*, Nutt.  
2286 *palustre*, Nutt.  
2304 *Gnaphalium purpureum*, L.  
2277 *Franseria bipinnatifida*, Nutt.  
2751\* *Chamissonis*, Less.  
2604 *Balsamorhiza sagittata*, Nutt.  
2482 *Wyethia mollis*, Gray.  
2484 *Helianthella Californica*, Gray.  
2248 *Madia Nuttallii*, Gray.  
2597 *elegans*, Don.  
2211 *sativa*, Molina, var. *congesta*,  
T. & G.  
2297 var. *racemosa*, Gray.  
2341 var.  
2467 var.  
2761 var. *dissitifolia*, Gray.  
2443 *glomerata*, Hooker.  
2290 *filipes*, Gray.  
2210 *Hemizonia corymbosa*, T. & G.  
2285 *macradenia*, DC.  
2762\* *pungens*, T. & G.  
2373 *luzulefolia*, DC.  
2760\* *plumosa*, Gray.  
2349 *Lagophylla ramosissima*, Nutt.  
2777\* *Jaumea carnosa*, Gray.  
2220 *Bahia artemisiifolia*, Less.  
2775\* *confertiflora*, DC.  
2776 var. *trifida*, Gray.  
2774\* *lanata*, DC., var. *grandiflora*,  
Gray.  
2491 *integrifolia*, DC.  
2773\* *arachnoidea*, F. & M.  
2333 *Monolopia major*, DC.,  
var. *lanceolata*, Gray.  
2478 *Chenactis Douglasii*, H. & A.  
2338 *Helenium puberulum*, DC.  
2772\* *Achillea millefolium*, L.  
2392 *Matricaria* *?*  
2771\* *discoidea*, DC.  
2770\* *Tanacetum Huronense*, Nutt.  
2354 *Artemisia Californica*, Less.  
2537 *Ludoviciana*, Nutt.  
2767\* *dracunculoides*, Pursh.  
2768\* *biennis*, Willd.  
2254 *pychnocephala*, DC.  
2769\* *trifida*, Nutt. (?)  
2765\* *Senecio vulgaris*, L.  
2574 *integerrimus*, Nutt. *?*  
2766\* *triangularis*, Hooker.  
2763\* *Arnica discoidea*, Benth.  
2572 *latifolia*, Bongard.  
2764 *longifolia*, Eaton.  
2788\* *Cnicus undulatus*, Gray.  
2789\* *Andersonii*, Gray.  
2306 *Californicus*, Gray.  
2787\* *Silybum Marianum*, Gaertn.  
2205 *Centaurea solstitialis*, L.  
2398 *Microseris nutans*, Gray.  
2790\* *Tragopogon porrifolius*, L.  
2346 *Stephanomeria paniculata*, Nutt.  
2791\* *minor*, Nutt.  
2778\* *Rafinesquia Californica*, Nutt.  
2221 *Hypochaeris glabra*, L.  
2786 *Malacothryx obtusa*, Benth.  
2785\* *saxatilis*, T. & G.  
2784\* *Crepis occidentalis*, Nutt.  
var. *Nevadensis*, Kellogg.  
2783\* *acuminata*, Nutt.  
2350 *Troximon apargioides*, Less.  
2781\* *grandiflorum*, Gray.  
2782\* *retrosum*, Gray.  
2284 *Hieracium albiflorum*, Hooker.  
2780\* *triste*, Willd., var. *gracile*, Gray.  
2779\* *Sonchus oleraceus*, L.  
2799\* *Heterocodon rariflorum*, Nutt.  
2275 *Campanula prenanthoides*, Durand.  
2798\* *Vaccinium Myrtillus*, L., var.  
*microphyllum*, Hooker.  
2797\* *occidentale*, Gray.  
2272 *Vaccinium ovatum*, Pursh.  
2800 *Arbutus Menziesii*, Pursh.  
2237 *Arctostaphylos tomentosa*, Dougl.  
2796 *pungens*, H. B. K., var.  
*platyphyllum*, Gray.  
2795\* *Nevadensis*, Gray.  
2794\* *Bryanthus Breweri*, Gray.  
2235 *Rhododendron occidentale*, Gray.  
2793\* *Ledum glandulosum*, Nutt.  
2367 *Statice Limonium*, L.,  
var. *Californica*, Gray.  
2801\* *Dodecatheon Meadia*, L.  
2247 *Anagallis arvensis*, L.  
2803\* *Asclepias speciosa*, Torrey.  
2802\* *Gomphocarpus cordifolius*, Benth.  
2805\* *Erythraea triacantha*, Griseb.  
2256 *Muhlenbergii*, Griseb.  
2806 var. (white flowered.)  
2609 *Gentiana calycosa*, Griseb.  
2804\* *Menyanthes trifoliata*, L.  
2470 *Phlox Douglasii*, Hooker.  
2812\* var. *longifolia*, Gray.  
2250 *Collomia grandiflora*, Dougl.  
2570 *linearis*, Nutt.  
2471 var. *subulata*, Gray.  
2552\* *aggregata*, Porter.  
2426 *gracilis*, Dougl.  
2466 *gilioidea*, Benth.  
2549 (?) var.  
2282 *heterophylla*, Hooker.  
2444 *leptalea*, Gray.  
2427 *Gilia pusilla*, Benth.  
2424 n. sp. ?  
2810 *micrantha*, Steudel.  
2557 *ciliata*, Benth.  
2474 *Californica*, Benth. (?)  
2217 *squarrosa*, Hook. & Arn.  
2809 *Breweri*, Gray.  
2465 *divaricata*, Torrey.  
2328 *atractyloides*, Steudel.  
2808\* *capitata*, Dougl.  
2381 *achilleaefolia*, Benth.  
2811\* *multicaulis*, Benth.  
2575 *Polemonium humile*, Willd.  
var. *pulchellum*, Gray.  
2807\* *ceruleum*, L.  
2817\* *Hydrophyllum occidentale*,  
Gray, var. *Watsoni*, Gray.  
2816\* *Nemophila parviflora*, Dougl.  
2815\* *Draperia systyla*, Torrey.  
2447 *Phacelia namatoides*, Gray.  
2813\* *circinata*, Jacq. f.  
2359 n. sp. ? *?*  
2313 *tanacetifolia*, Benth.  
2814\* *ramosissima*, Dougl.  
2416 *hydrophyloides*, Torrey.  
2269 *Emmenanthe penduliflora*, Benth.  
2496 *Nama Lobbii*, Gray.  
2820 *Heliotropium Curassavicum*, L.  
2357 *Amsinckia intermedia*, F. & M.  
2819\* *Eritrichium Chorisianum*, DC.  
2326 *Scouleri*, A. DC.  
2428 *Californicum*, DC.  
2539\* var. *subglochidiatum*, Gray.  
2339 *Iciocarpum*, Watson.  
2337 *muriculatum*, A. DC.  
2472 var.  
2818\* var. *ambiguum*, Gray.  
2276 *Convolvulus luteolus*, Gray.  
2296 *arvensis*, L.  
2317 *Cressa Cretica*, L.  
var. *Truxillensis*, Choisy.  
2490 *Cuscuta Californica*, Choisy,  
var. *breviflora*, Eng.  
2821\* var. *longiloba*, Eng.  
2316 *salina*, Eng.  
2224 *Solanum nigrum*, L.,  
var. *Douglasii*, Gray.  
2223 *umbelliferum*, Esch.  
2548 *Chamaesaracha nana*, Gray.  
2822 *Nicotiana attenuata*, Torrey.  
2225 *Scrophularia Californica*, Cham.  
2429 *Collinsia Torreyi*, Gray.  
2394 var. *nodosa* form  
2488 *Pentstemon Menziesii*, Hooker.  
2596 *Lemmonii*, Gray.  
2823\* *glaber*, Pursh.  
2464 var. (densely pubescent.)  
2486 *deustus*, Dougl.  
2538 *confertus*, Dougl.,  
var. *caeruleo-purpureus*, Gray.  
2461 *gracilentus*, Gray.  
2439 *azureus*, Benth., var. *parvulus*,  
var. [Gray] *?*  
2593 *Roezlii*, Regel.  
2399 *heterodoxus*, Gray.  
2561 (?) var.  
2396 *Mimulus leptaleus*, Gray.  
2459 var. *?*  
2507 *nanus*, Hook. & Arn.  
2250 *glutinosus*, Wendland.  
2495 *Lewisii*, Pursh.  
2513 *luteus*, L.  
2608 var. *alpinus*, Gray.  
2415 *rubellus*, Gray.  
2824\* *floribundus*, Dougl.  
2825\* *moschatus*, Dougl.  
2434 *primuloides*, Benth.  
2826\* *Veronica alpina*, L.  
2827\* *Castilleja foliolosa*, H. & A.  
2243 *latifolia*, Hook. & Arn.  
2590 *parviflora*, Bong.  
2535 *miniata*, Dougl.  
2531 var.  
2828 *Orthocarpus* *?*  
2830\* *pilosus*, Watson.  
2829\* *divaricatus*, Benth.  
2603 *tenuifolius*, Benth.  
2599 *lacerus*, Benth.  
2589 *Corilyanthus tenuis*, Gray.  
2366 *maritimus*, Nutt.  
2581 *Pedicularis racemosa*, Dougl.  
2576 *Grœnlandica*, Retz.  
2540 *attollens*, Gray.  
2419 *semibarbata*, Gray.  
2853\* *Aphyllon Californicum*, Gray.  
2836\* *Mentha Canadensis*, L.  
2834\* *Monardella villosa*, Benth.  
2218 var. *leptosiphon*, Torrey.  
2835\* var. *glabella*, Gray.  
2475 *odoratissima*, Benth.  
2216 *Micromeria Douglasii*, Benth.  
2833\* *Pogogyne serpyllifolia*, Gray.  
2268 *Audubertia stachyoides*, Benth.  
2587 *Lophanthus urticifolius*, Benth.  
2594 *Scutellaria Californica*, Gray.  
2832 *Brunella vulgaris*, L.  
2222 *Stachys bullata*, Benth.  
2831\* *Trichostema oblongum*, Benth.  
2215 *Verbena officinalis*, L. *?*  
2598 *Plantago major*, L.  
2837\* *maritima*, L.  
2838\* *Virginica*, L., var. *maxima*, Gray.  
2276 *Abronia umbellata*, Lam.  
2379 *latifolia*, Esch.  
2850\* *Oxyria digyna*, Campd.  
2847\* *Rumex salicifolius*, Weinm.  
2849\* *maritimus*, L.  
2848\* *pulcher*, L.  
2846\* *acetosella*, L.  
2384 *Polygonum Paronychia*, Cham. &  
2861\* *Shastense*, Brewer. [Sch.  
2845 *aviculare*, L.  
2504 *minimum*, Watson.  
2455 *tenne*, Michx.  
2423 *Polygonum imbricatum*, Nutt.  
2844\* *Muhlenbergii*, Watson.  
2545 *Bistorta*, L.  
2613 *polymorphum*, Ledeb.  
2843\* *Davisia*, Brewer.  
2503 *Eriogonum umbellatum*, Torrey.  
2611 *Lobbii*, T. & G.  
2417 *incanum*, T. & G. = *E. marifolium*  
2219 *latifolium*, Smith.  
2363 *nudum*, Dougl.  
2842\* var. *pauciflorum*, Watson.  
2841\* *microthecum*, Nutt.  
2840\* *vimineum*, Dougl.  
2408 *Oxythea n. sp.* = *E. subulnaria*  
2393 *Chorizanthe Douglasii*, Benth. *?*  
2253 *pungens*, Benth.  
2327 var. *C. ensifolia*, n. sp.  
2386 *Pterostegia drymarioides*, F. & M.  
2239 *Amarantus retroflexus*, L.  
2852\* *blitoides*, Watson.  
2858\* *Chenopodium ambrosioides*, L.  
2859\* var. *anthelminticum*, Gray.  
2860\* *capitatum*, Watson.  
2278 *Atriplex leucophylla*, Dietrich.  
2370 *Californica*, Moquin.  
2361 *Hesperocnide tenella*, Torrey.  
2856\* *Platanus racemosa*, Nutt.  
2857\* *Eremocarpus setigerus*, Benth.  
2383 *Croton Californicus*, Muell. Arg.  
2855\* *Euphorbia ocellata*, Dur. & Hilg.  
2862\* *serpyllifolia*, Pers.  
2864\* *Alnus rhombifolia*, Nutt.  
2863\* *incana*, Willd., var.  
*virescens*, Watson.  
2351 *Myrica Californica*, Cham.  
2870\* *Salix laevigata*, Bebb.  
2450 *lasiantha*, Benth., var.  
*typica*, Bebb.  
2869\* *lasiolepis*, Benth.  
2868\* *flavescens*, Nutt.  
2867\* *Sitchensis*, Sanson, var.  
*angustifolia*, Bebb.  
2446 *Californica*, Bebb.  
2865\* *Populus tremuloides*, Mx.  
2866\* *trichocarpa*, T. & G.  
2483 *Quercus chrysolepis*, Liebm., var.  
*vacciniifolia*, Eng.  
2292 *agrifolia*, Nee.  
2362 *Wislizeni*, A. DC., var.  
*frutescens*, Eng.  
2871\* *Kelloggii*, Newberry.  
2298 *densiflora*, Hook. & Arn.  
2872\* *Castanopsis chrysophylla*, A. DC.  
2873\* *Corylus rostrata*, Ait., var.  
*Californica*, A. DC.  
2601\* *Arceuthobium divaricatum*, Eng.  
2457 *Juniperus occidentalis*, Hooker,  
var. (seeds exposed.)  
2355 *Cupressus Goveniana*, Gordon.  
2600 *Libocedrus decurrens*, Torrey.  
2299 *Sequoia sempervirens*, Endl.  
2463 *Abies concolor*, Lindley.  
2874\* *magnifica*, Murray.  
2875\* *Pseudotsuga Douglasii*, Carr.  
2365 *Tsuga Pattoniana*, Eng.  
2462 *Pinus monticola*, Dougl.  
2877\* *Lambertiana*, Dougl.  
2458 *ponderosa*, Dougl., var. *Jeffreyi*,  
contorta, Dougl., var. [Eng.  
2422 *Murrayana*, Eng.  
2876\* *insignis*, Dougl.  
2244 *Habenaria elegans*, Bolander.  
2879\* *leucostachys*, Watson.  
2578 *Spiranthes Romanzoffiana*, Cham.  
2878\* *porifolia*, Lindley.  
2880\* *Sisyrinchium bellum*, Watson.  
2882\* *Allium validum*, Watson.



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- Androsace* ?
- 2881\* *laenosum*, Watson.  
2569 *platycaule*, Watson.  
2884\* *Brodiea grandiflora*, Smith.  
2885\* *terrestris*, Kellogg.  
2249 *ixioides*, Watson.  
2895\* *Camassia esculenta*, Lindley.  
2213 *Chlorogalum pomeridianum*, Kunth.  
2886 *Smilacina amplexicaulis*, Nutt.  
2887\* *sessilifolia*, Nutt.  
2888\* *Lilium Washingtonianum*, Kell.  
2441 *parvum*, Kellogg.  
2281 *pardalinum*, Kellogg, var.  
*angustifolium*, Kellogg.  
2889\* *Calochortus Weedii*, Wood.  
2890\* *luteus*, Dougl., var.  
*oculatus*, Watson.  
2418 *Nuttallii*, T. & G.  
2891\* *Prosartes Hookeri*, Torrey.  
2883\* *Clintonia Andrewsiana*, Torrey.  
2892\* *Trillium ovatum*, Pursh.  
2893\* *Veratrum Californicum*, Durand.  
2894\* *Zygadenus venenosus*, Watson.  
2356 *Lemna Valdiviana*, Philippi.  
2900\* *Phyllospadix Torreyi*, Watson.  
2310 *Potamogeton gramineus*, L.  
2309 *pectinatus*, L.  
2896\* *Luzula divaricata*, Watson.  
2897 *comosa*, Meyer.  
2898\* *var. macrantha*, Watson.  
2899\* *var. subsessilis*, Watson.  
2385 *Juncus Lescurei*, Bolander.  
2340 *effusus*, L., var. *brunneus*, Eng.  
2293 *patens*, Meyer.  
2573 *Parryi*, Eng.  
2903\* *bufonius*, L.  
2936\* *var. fasciculiflorus*, Eng.  
2498 *tenuis*, Willd.  
2902 *longistylis*, Torrey.  
2524 *var. latifolia*, Eng.  
2558 *xiphioides*, Meyer, var.  
*montanus*, Eng.  
2387 *phaecephalus*, Eng.  
*"forma angustifolia,"* Eng.  
2400 *var. gracilis*, Eng.  
2343 *var. paniculatus*, Eng.  
2562 *Mertensianus*, Meyer.  
2499 *Scirpus sylvaticus*, L., var.  
*digynus*, Boeck.  
2906\* *Hemicarpha subsquarrosa*, Nees.  
2905\* *Eleocharis acicularis*, R. Br.  
2612 *palustris*, R. Br.  
2904\* *rostellata*, Torrey.  
*var. occidentalis*, Watson.  
2908\* *Carex filifolia*, Nutt.  
3010\* *Gayana*, Desv.  
2500 *festiva*, Dew., var. *gracilis*, Olney.  
2533 *athrostachya*, Olney.  
2283 *Deweyana*, Schwein, var.  
*Bolanderi*, W. Boott.  
n. sp. (?)  
2448 *echinata*, Murr. (?) var.  
3011\* *scoparia*, Schl.  
2407 *var. fulva*, W. Boott.  
2515 *adusta*, Boott.  
*var. congesta*, W. Boott.  
3012\* *Buxbaumii*, Wahl.  
3013 *atrata*, L., var. *erecta*, W. Boott.  
2449 *Kelloggii*, W. Boott.  
2520 *vulgaris*, var. *juncella*, Fries.  
3014\* *angustata*, Boott.  
3017\* *Jamesii*, Torrey.  
2345 *laciniata*, Boott.  
3015\* *podocarpa*, R. Br.  
2534 *Raynoldsii*, Dewey.  
2530 *globosa*, Boott.  
2514 *Whitneyi*, Olney.  
2907\* *luzulaefolia*, W. Boott.  
2492 *fulva*, Good., var.  
*Hornschurchiana*, Boott.  
3016\* *filiformis*, L., var. *latifolia*,  
*vesicaria*, L. [Boeckeler.  
2307 *Paspalum distichum*, L.  
2294 *Panicum dichotomum*, L.  
2910\* *Setaria glauca*, Beauv.  
2912\* *Phleum alpinum*, L.  
2911\* *Alopecurus pratensis*, L.  
2913\* *Hierochloa macrophylla*, Thurber.  
2914\* *Vilfa depauperata*, Torrey.  
2401 *gracillima*, Thurber.  
2915\* *var.*  
2529 *Sporobolus Jonesii*, Vasey, n. sp.  
2352 *Polypogon littoralis*, Smith.  
2916\* *Agrostis alba*, L.  
2618\* *exarata*, Trin. (?) var.  
2919\* *varians*, Trin.  
2305 *Gastridium australe*, Beauv.  
2917\* *Calamagrostis Canadensis*, Beauv.  
2583 *Stipa occidentalis*, Thurber.  
2553 *Sibirica*, L.  
2920 *viridula*, Trin.  
2921\* *Danthonia Californica*, Bol., var.  
2922 *var. unispicata*, Thurber.  
2923 *Trisetum subspicatum*, Beauv.  
*var.*  
2518 *var. muticum*, Bolander.  
(T. Wolfii, Vasey.)  
2579 *Aira caespitosa*, L.  
2924 *elongata*, Hook.  
2201 *var. tenuis*, Vasey.  
2947\* *danthonioides*, Trin.  
2925 *Melica imperfecta*, Trin.  
2563 *var. (2 flowered)*  
2479 *stricta*, Bolander.  
2934\* *Harfordii*, Bolander.  
2928\* *Glyceria nervata*, Trin.  
2577 *pauciflora*, Presl.  
2517\* *Atropis*—?  
2929\* *Californica*, Munro.  
2526 *tenuifolia*, Thurber.  
2927\* *Poa arctica*, R. Br.  
2926\* *Bolanderi*, Vasey, Ms. *Nev.*  
2930\* *Briza media*, L.  
2932\* *Festuca Myurus*, L.  
2931\* *ovina*, L.  
2516\* *var. duriuscula*, Gray.  
2933 *Bromus maximus*, Desf.  
2287 *ciliatus*, L.  
2487 *Ceratochloa brevistarata*, Hooker.  
2935\* *Lolium perenne*, L.  
2308 *temulentum*, L.  
2522 *Hordeum nodosum*, L.  
2938 *Elymus condensatus*, Presl.  
2937 *Sibiricus*, L.  
2480 *Sitanion*, Schult.  
2939\* *Equisetum robustum*, A. Braun.  
2944\* *Poypodium Californicum*, Kaulf.  
2206 *Gymnogramme triangularis*, Kaulf.  
2438 *Cheilanthes gracillima*, Eaton.  
2943\* *Pellaea andromedaeifolia*, Fce.  
2252 *Ornithopus*, Hooker.  
2436 *densa*, Hooker.  
2437 *Bridgesii*, Hooker.  
2442 *Cryptogramme acrostichoides*, R. Br.  
2209 *Pteris aquilina*, L., var.  
*lanuginosa*, Bong.  
2240 *Adiantum emarginatum*, Hooker.  
2610 *pedatum*, L.  
2232 *Lomaria spicata*, Desvaux.  
2280 *Woodwardia radicans*, Smith.  
*var. Americana*, Hooker.  
2942\* *Asplenium Filix-foemina*, Bernh.  
2208 *Aspidium rigidum*, Swartz.  
*var. argutum*, Eaton.  
2207 *munitum*, Kaulf.  
2941 *aculeatum*, Swartz, var.  
*angulare*, Braun.  
2901\* *var. scopulinum*, Eaton.  
2940\* *Cystopteris fragilis*, Bernh.  
2311 *Chara* —

## Nevada Plants.

- 2178\* *Aquilegia formosa*, Fischer.  
2179\* *Arabis platysperma*, Gray.  
2997\* *Sisymbrium canescens*, Nutt.  
*var. (No. 98, Watson.)*  
2998\* *Caulanthus procerus*, Watson.  
3001\* *Lepidium flavum*, Torrey.  
3003\* *montanum*, Nutt.  
2180 *Cleomella parviflora*, Gray.  
3000 *placasperma*, Watson.  
2181\* *Stellaria Kingii*, Watson.  
2182 *Sidalcea malvaeflora*, Gray.  
2991\* *Lupinus uncialis*, Watson.  
2990\* *diphysus*, Gray.  
2183 *Astragalus filipes*, Torrey.  
2184 *multiflorus*, Gray.  
3004\* *Geyeri*, Gray.  
2185 *Dalea polyadenia*, Torrey.  
2186\* *Trifolium n. sp. (?) monanthum*  
2187 *Ivesia Kingii*, Watson.  
2188\* *Heuchera cylindrica*, Dougl.  
*var. alpina*, Watson.  
2189\* *Sedum Rhodiola*, DC.  
2193\* *Eupatorium occidentale*, Hooker.  
2191 *Aplopappus nanus*, Eaton.  
2196 *tenuicaulis*, Eaton.  
2197\* *lanceolatus*, T. & G., var.  
*Vaseyi*, Parry?  
2195 *uniflorus*, T. & G.  
2190 *Bigelovia Douglasii*, Gray, var.  
*stenophylla*, Gray.  
*var. puberula*, Gray.  
2194 *n. sp. R. W.*  
2192 *Erigeron asperugineus*, Gray.  
2198 *Townsendia scapigera*, Eaton.  
2199\* *Aster arenarioides*, Eaton.  
2200\* *var. (pubescent.)*  
2992\* *Layia heterotricha*, H. & A.  
2949 *Helianthus Nuttallii*, T. & G.  
(very slender form.)  
2948\* *Actinella Richardsonii*, Nutt.,  
*var. canescens*, Eaton.  
2950 *Tetradymia glabrata*, T. & G.  
2996\* *Chenactis stevioides*, H. & A.  
3002\* *carphoclinia*, Gray.  
2951\* *Malacothryx Torreyi*, Gray.  
2952\* *Stephanomeria exigua*, Nutt.  
2989\* *Glyptopleura marginata*, Eaton.  
2953 *Lygodesmia spinosa*, Nutt.  
2954\* *Phacelia sericea*, Gray, var.  
2955\* *Gilia pungens*, Benth.  
3006\* *var. squarrosa*, Gray.  
2956\* *floccosa*, Gray.  
2957 *Gentiana serrata*, Gunner.  
2961\* *Erythraea Nuttallii*, Watson.  
2993\* *Asclepias Mexicana*, Cav.  
2994\* *Psathyrotes annua*, Gray.  
2958\* *Pentstemon glaber*, Pursh., var.  
(puberulent, anthers glabrous.) *H. H. H.*  
2959\* *Watsoni*, Gray.  
2960\* *confertus*, Dougl., var. *p. densatus*  
*caeruleo-purpureus*, Gray. *Y.M.*  
2965\* *Mimulus primuloides*, Benth.  
2999\* *Veronica peregrina*, L.

*Artemisia aculeata*

- 2962\* *Castilleja linoides*, Gray.  
 2964\* *Orthocarpus luteus*, Nutt.  
 2963 *Cordylanthus ramosus*, Nutt.  
 2987\* *Abronia turbinata*, Torrey.  
 2966\* *Eriogonum vimineum*, Dougl.  
 2967\* Baileyi, Watson.  
 2968 microthecum, Nutt.  
 2969\* *Plumatella*, Dur. & Hilg.  
 2970\* nudum, Dougl., var.  
 oblongifolium, Watson.  
 2988\* *Oxytheca dendroidea*, Nutt.  
 2995\* *Chorizanthe Watsoni*, T. & G.  
 2971\* *Polygonum polymorphum*, Ledeb.,  
 var.  
 2972\* *Parietaria Pennsylvanica*, Muhl.  
 2973\* *Euphorbia ocellata*, Dur. & Hilg.  
 2974\* *Salix chlorophylla*, And. (?)  
 2975\* *Pinus flexilis*, James.  
 2976\* *Iris Missouriensis*, Nutt.  
 2977\* *Lemna Valdiviana*, Philippi.  
 2979 *Habenaria leucostachys*, Watson.  
 2978 *Allium validum*, Watson.  
 2980 *Carex vulgaris*, Fries, var.  
 alpina, Boott.  
 2981\* luzulaefolia, Boott.  
 2981\* *Vilfa cuspidata*, Torrey.  
 2982 *Melica stricta*, Bolander.  
 2985\* *Aspidium aculeatum*, Swartz, var.  
 scopulinum, Eaton.

## Additions to Utah List.

- 1681 *Myosurus aristatus*, Benth.  
 2136 *Ranunculus repens*, L.  
 1841 *Thelypodium sagittatum*, Endl.  
 1355 *Erysimum asperum*, DC.  
 3137\* *Stellaria longipes*, Goldie.  
 2123 *Arenaria Fendleri*, Gray.  
 2139 *Sidalcea candida*, Gray.  
 2140 *Lupinus holosericeus*, Nutt.,  
 var. *Utahensis*, Watson.  
 2141 aridus, Dougl., var.  
 Utahensis, Watson.  
 2169 leucophyllus, Lindley.  
 2142\* *Astragalus glareosus*, Dougl.  
 2143 hypoglottis, L.  
 1467 *Brickellia microphylla*, Gray.  
 2144 *Erigeron glabellus*, Nutt., var.  
 1984 *Balsamorhiza macrophylla*, Nutt.  
 2145 *Artemisia frigida*, Willd.  
 1470 *Rigiopappus leptocladus*, Gray.  
 2146 *Gentiana affinis*, Smith.  
 3008\* heterosepala, Eng.  
 2147\* *Gilia Breweri*, Gray. (?)  
 2031 *Echinosperrum Redowskii*, Lehm.,  
 var. *cupulatum*, Gray.  
 2032 *Eritrichium Californicum*, DC.  
 2148 *Mertensia alpina*, Don.,  
 (brevistyla, Watson.)  
 2151 *Pentstemon glaber*, Pursh., var.  
 Utahensis, Watson.  
 2149 *Orthocarpus luteus*, Nutt.  
 2150\* *Cordylanthus ramosus*, Nutt.  
 2069 *Shepherdia argentea*, Nutt.  
 2152\* *Salix alba*, L., var. *vitellina*, Gray.  
 2153\* *Pinus flexilis*, James.  
 2156 *Brodiaea Douglasii*, Watson.  
 2155 *Camassia esculenta*, Lindley.  
 2091 *Zygadenus venenosus*, Watson.  
 2154 *Carex filiformis*, L., var.  
 latifolia, Boeck.  
 2157 *Aira danthonioides*, Trin.  
 3009 *Aspidium aculeatum*, Swartz,  
 var. *scopulinum*, Eaton.  
 2166 *Woodsia Oregana*, Eaton.

☞ The FUNGI and ALGÆ will occupy separate lists.

Correspondents who are unknown to me should invariably send the money with order, or send satisfactory references that the plants will be paid for when received.

TERMS: Cash with the order.

### CHANGES IN UTAH LIST.

**Undetermined Species.**—1648 = *Sisymbrium deflexum*, Nuttall; 1623 = *Eriogonum chamæroides*, Gray; 1691 = *Cynopterus Fendleri*, Gray; 1894\* = *Kelloggella galioides*, Torrey, the true form, Torrey did not describe it correctly. 1973 = *Aplopappus acaulis*, Gray; 197\* = *Gymnoloma multiflora*; 1982\* = *Filago Arizonica*, Gray; 1736 = *Senecio integerrimus*, Hooker; 2013\* = *Sonchus arvensis*; 1639 = *Gilia scopulorum*, Jones, n. sp.; 1651 = *inconspicua* var. *sinuata*, Gray; 1641 = *Eritrichium fulvum*, A. DC.; 1888 = *Pentstemon Kingii*, Watson; 1815 = *Eriogonum puberulum*, Watson; 2071\* = *Monolepis pusilla*; 2095\* = *Brodiaea capitata*, Benth.

**Errors of our Authorities.**—UTAH LIST.—*Zygadenus Nuttalli* = *venenosus*, Watson; *Erythronium grand.* = the var. *minus*; *Veratrum album* = *Californicum*, Esch.; *Melica poaeoides* = *bulbosa*; *Glyceria distans* and *maritima* = *Atropis distans*; *Lemna polyrrhiza* = *Speirodolia* —; *Scirpus microcarpus* = *sylvaticus*, Presl., var. *digynus*; *Poa Kingii*, Watson = *glumaria*; *Elymus triticoides* = *condens.* var. *trit.*; *Delphinium elatum*, var. = *D. occidentale*, Watson; *Corydalis Caseana* = *Irandegei*, Watson, n. sp.; *Silene acaulis* = *montana*, Watson, n. sp.; *Trisetum* species are near to var. *muticum*.

**Errors.**—171\* = *Ranunculus nivalis*, v. *Eschscholtzii*, Watson; 1821 = *Lepidium integrifolium*, Nuttall; 1818 = *Arenaria congesta*, v. *subcongesta*, Watson; 1620 = *Astragalus Nuttallianus*, Fries; Watson, but I do not agree. 1964 = *Peucedanum Parryi*, Watson; 2048\* = *Nemoladus ramosissimus*, Nuttall; 1735 = *Eriogonum microthecum*, Nuttall, typ. f.; 2070 = *E. subreniforme*, Watson; *Stipa speciosa* is of Trin. & Rup., not Torrey; *Ribes leptanthum*, var. *typ. f.*